THE RAILWAY GAZETTE
A Journal of Management, Engineering and Operation
INCORPORATING
The Railway Engineer · TRANSPORT · The Railway News
The Railway Times · Herapath's Railway Journal · The Railway Record.
Railways Illustrated · Established 1835 · The Railway Official Gazette

Published Every Friday
at
33, TOTHILL STREET, WESTMINSTER, LONDON, S.W.1

Telegraphic Address: "Trazette Parl., London"
Telephone No.: Whitehall 9233 (8 lines)

Annual subscription payable in advance and postage free
British Isles and Abroad .....£2 5s. 0d.
Single Copies .....One Shilling
Registered at the General Post Office, London, as a Newspaper

Vol. 80 No. 19 Friday, May 12, 1944

CONTENTS

	PAGE
Editorial Notes	485
The Commons Debate on War Transport	487
Co-Ordination of Transport	488
Eire Transport Bill	488
Anglo-Argentine Railways and Nationalisation	489
Letters to the Editor	490
The Scrap Heap	491
Overseas Railway Affairs	492
Signal Engineers and the Future	493
Cargo Coaling Plants—V	495
An Unusual Slip in a Rock Cutting	498
Personal	503
Transport Services and the War	505
Stock Market and Table	512

GOODS FOR EXPORT

The fact that goods made of raw materials in short supply owing to war conditions are advertised in this paper should not be taken as indicating that they are available for export

NOTICE TO SUBSCRIBERS

Consequent on the paper rationing, new subscribers cannot be accepted until further notice. Any applications will be put on a waiting list and will be dealt with in rotation in replacement of subscribers who do not renew their subscriptions

POSTING "THE RAILWAY GAZETTE" OVERSEAS

We would remind our readers that there are many overseas countries to which it is not permissible for private individuals to send printed journals and newspapers. The Railway Gazette *possesses the necessary permit and facilities for such dispatch.*

We would emphasise that copies addressed to places in Great Britain should not be re-directed to places overseas

TO CALLERS AND TELEPHONERS

Until further notice our office hours are:
Mondays to Fridays 9.30 *a.m. till* 5.30 *p.m.*
The office is closed on Saturdays

ANSWERS TO ENQUIRIES

By reason of staff shortage due to enlistment, we regret that it is no longer possible for us to answer enquiries involving research, or to supply dates when articles appeared in back numbers, either by telephone or by letter

ERRORS, PAPER, AND PRINTING

Owing to shortage of staff and altered printing arrangements due to the war, and less time available for proof reading, we ask our readers' indulgence for typographical and other errors they may observe from time to time, also for poorer paper and printing compared with pre-war standards.

Railways and Air Transport

ON a motion by Lord Londonderry civil aviation was due to be discussed in the House of Lords shortly after we closed for press. A report of the proceedings will be given in our next week's issue. It was expected that the attitude of both the shipping and railway companies towards post-war civil aviation would be made known during the course of the debate. So far as the railway compapies are concerned they do not seek a subsidy for the operation of air services, assuming that other parties operating similar services are likewise unsubsidised, but they hold the view that they should be permitted to conduct civil air transport not only within Great Britain, but also to the principal European capitals. It is not their intention to "strangle" civil aviation in any form, but rather to permit it to develop as a part of the general transport system. Railway experience with air services, since railway air powers were secured in 1929, has been that the provision of air transport facilities has tended to increase travel by rail as well as by air. They would seek to carry mails by air, securing this traffic in the normal way. They will also be willing to co-operate with short-sea services where there is a local community of interest.

Argentine State Railways Administration

The resignation of Señor Eduardo Huergo from the General Managership of the Argentine State Railways, a position he had held for about a year only, is the outcome of action by a section of the employees. Señor Huergo has been attached to the State Railways Administration since March, 1932, the time during which considerable progress has been made by the railways, and he had achieved a considerable reputation as an able railway officer. The terms of the petition (summarised on page 492) presented to the President of the Republic by members of the Union Ferroviaria, which has resulted in the resignation of the General Manager and with him of the Administrative Council, savour of a political background. The incident lends point to the need for a careful exclusion of political influences in relation to commercial undertakings, an objective which often is difficult of achievement in State-owned enterprises. Among the many State railways operating in the British Empire this objective has been achieved with greater success perhaps than many other parts of the world; in fact the point was made in a recent correspondence in our columns that in many cases the success of these railways has been attained in spite of, rather than because of, State ownership, and that in practice the influence of the political administration was negligible.

Government Control of the Coal Industry

In June, 1942, it was announced that the Government would take full control of the operation of all coal mines, and over the allocation of coal raised, and that as a result of measures then put forward in a White Paper, the Government looked for a "consistent increase in output during the coming year." The Central Council of the Economic League points out that ministerial statements in the House of Commons have shown how far short Government control has fallen in its objective. For the eighteen months preceding control, output was 307,144,500 tons, and in the first eighteen months of control it was 298,321,800 tons; a reduction of 8,822,700 tons. In the first twelve weeks of the current year output has fallen by 3,764,800 tons compared with twelve months earlier. In the White Paper it was stated that the number of shifts being worked each week was the highest on record, and a figure of 5·66 was mentioned. Since then the number of man shifts worked has declined steadily, and on an average each man now works half a shift less a week than the record mentioned by the Minister of Fuel & Power. Output has declined from 142·5 tons per person in the first six months of 1942, to 137·1 tons for the last six months of 1943.

Another Plan for Railways in London

The Royal Academy Summer Exhibition includes the plans of the Royal Academy Planning Committee for improving rail and road communications in London. The plans are accompanied by a detailed report and are largely concerned with the treatment of roads. Among the railway suggestions is the provision of an underground-ring railway to be joined by all main lines to London, and to intersect the existing Central, Northern, Bakerloo, and Piccadilly underground lines. The plans would allow suburban and main-line trains entering London to be taken to the ring, to proceed round it, and to return to their own lines. The report states rather naively that "the number of tracks in the ring lines would probably be regulated by technical considerations," and it is also admitted that the number of trains which could be accommodated over each main line "needs careful study by experts conversant with the possibilities of tube railways." These, and certain other questions, the report says,

" can be settled only after careful consideration by experts with special knowledge of tube railway conditions." The present fashion in planning seems to be to give the theoretician his head first and to call in the expert afterwards. Whether this is the best way of achieving practical results presumably will be seen in the post-war era.

■■■■

Railways and Population

Trends of population are of considerable importance to railways, more especially in the formation of long-term plans. A decline in population, inevitable in the absence of a marked or permanent rise in the prevailing level of fertility, would have serious economic repercussions. The Minister of Health has recently appointed a Statistical Committee to assist the Royal Commission on Population, and, as was recorded in our March 10 issue, Mr. F. A. A. Menzler, B.Sc., F.I.A., Chief Financial Officer, London Passenger Transport Board, is one of the members of that Committee. Mr. Menzler is well qualified for his work on that body. He is an Actuary, who has served in the Government Actuary's Department, and was Vice-President of the Institute of Actuaries from 1939 to 1943. He was Chairman of the Institute's Board of Examiners for a number of years, and was Secretary of the Permanent Committee on Official Statistics. He has also served as a member of the Statistical Committee of the Medical Research Council. He was a member of the two official committees which, between 1937 and 1939, reported on the health of the London Passenger Transport Board bus staff.

■■■■

Overseas Railway Traffics

Payment of arrears of interest on the 4 per cent. debenture stock of the Central Argentine Railway has caused some improvement in the prices of that company's junior stocks. In the case of the San Paulo (Brazilian) Railway the authorisation of a 15 per cent. increase in tariffs has brought a rise in the ordinary stock. Argentine railway traffics in the 43rd and 44th weeks of the financial year are still good. Increases in the two weeks are £111,981 on the Central Argentine, £39,120 on the Buenos Ayres Great Southern, £35,100 on the Buenos Ayres & Pacific, £8,760 on the Buenos Ayres Western, £5,364 on the Argentine North Eastern, and £3,504 on the Entre Rios. Antofagasta traffics for the period January 1 to April 30, 1944, amount to £505,610, an increase of £31,590, and the Nitrate Railways for the same period has receipts of £70,115, an increase of £20,100.

	No. of week	Weekly traffics £	Inc. or dec. £	Aggregate traffic £	Inc. or dec. £
Buenos Ayres & Pacific*	44th	129,300	+19,200	4,677,360	+275,220
Buenos Ayres Great Southern* ...	44th	167,400	+19,380	7,841,160	+739,560
Buenos Ayres Western*	44th	64,440	+3,780	2,469,100	+90,360
Central Argentine*	44th	185,490	+64,578	6,647,412	+826,461
Canadian Pacific	18th	1,555,600	−35,400	20,120,200	+2,654,600

* Pesos converted at 16⅔ to £

Aggregate net earnings of the Canadian Pacific Railway for the first quarter of 1944 amounted to £1,953,400, an improvement of £218,000 on the first quarter of 1943, and the aggregate gross earnings of £14,969,600 showed an increase of £2,313,000.

■■■■

The Canadian Pacific Position

At the recent annual general meeting of the Canadian Pacific Railway Company, Mr. D. C. Coleman, Chairman & President, pointed out the significance of the fact that, notwithstanding successive increases in operating costs, the record traffic of 1943 had been carried at pre-war rates. During the 15 years previous to 1939 many reductions had been made in the charges for certain classes of traffic in order to meet the rising tide of highway competition. Working expenses and taxes for 1943 required 83 cents out of every dollar of earnings, approximately the same as during the low-traffic pre-war years, and the higher costs had, therefore, offset all the benefits of improved unit performance resulting from the increased traffic volume. It was not improbable that in certain classes of traffic decreases rather than increases might become general. He greatly regretted the decision of the Government that the railway companies were to be required to divest themselves of the ownership of air lines within one year after the close of the war, but a recent statement by the Minister in Charge of Civil Aviation to the effect that there would be no confiscation led the directors to assume that the company's investment in aviation could be liquidated on terms which would not be unjust to the shareholders. The possibility of a dividend on the ordinary stock, payable out of the current year's earnings, would be considered in August.

The French Railway Situation

Some account of the railway situation in Germany, based on a statement by a spokesman of the Ministry of Economic Warfare, was given in our March 17 issue; and last week further facts, relating particularly to French, Belgian and south-east Balkan railways, were intimated by a representative of the Ministry. The staff shortage in Germany is acute; in the last five months about 40,000 railwaymen have joined those already serving abroad, among whom many key men have become casualties. The number released from points recaptured by the Allies has not helped materially the domestic situation. It is thought that the German staff in France (about one to every ten French railwaymen) could maintain a skeleton service on its own, but it is doubtful whether the proportionately smaller number in Belgium could do so. Since 1941, about 5,000 French locomotives have been sent to Russia; many of the remainder would be due for scrapping even had they not suffered from four years of bad maintenance, shortage of lubricants, and intentional neglect by the French. In 1943 serious sabotage in France increased by 1,000 per cent. The cumulative effect of rails destroyed has resulted even in main lines being pulled up (where several tracks existed) to provide replacements. The shortage, and delay in circulation, of wagons is such that engines are reported to have run short of coal in mining areas.

■■■■

German Railway Difficulties in the East

Although a number of locomotives has been produced in Germany, the spokesman of the Ministry of Economic Warfare said that they came in adequate quantity too late to save the situation in Russia. That was due largely to Allied bombing of the works concerned, which at the same time had hindered tank production. The eastern front must now be supplied through the Balkans, and serious traffic congestion has occurred. Many of the restrictions placed on Hungarian non-military traffic at the time of occupation remain in force, and the wagon shortage in Bulgaria is stated to be such that the Army authorities have been known to commandeer civilian vehicles *en route* and dump their contents by the track-side. The Bulgarian railways have been found to be cheaply built and badly equipped, and possess no alternative facilities. Their situation has not been helped by the Allied air offensive. Bulgarian ports on the Danube are congested with goods which cannot be cleared, as is the frontier station between that country and Turkey. The wagon shortage throughout German-controlled territories has made running to timetables impossible: when sufficient wagons are not available to make up a train, its running is delayed or cancelled.

■■■■

Unusual Slip in a Rock Cutting

On another page is a description of an unusual slip which took place on December 8, 1942, in a rock cutting between Saltash and St. Germans on the Great Western Railway main line, and the measures taken by the company to ascertain the extent of the movement and to safeguard the section affected. The cutting was excavated in 1905-07 as part of the Saltash-St. Germans Deviation Line and was about 80 ft. deep and composed of rock with almost vertical strata. The slip occurred without previous warning and was not of the ordinary kind such as are experienced in cuttings where the material is of clay. The movement consisted of two parts; one was the folding over of the vertical strata by a turning movement from a line of fracture, with a considerable amount of sliding of the various layers of rock relative to each other above this line. The other part was the settlement and sliding forward of the more friable material at the top of the cutting. It was necessary to stop traffic entirely for about 2½ days, after which single-line working was in operation for a period of 4½ months, during which time the removal of 12,000 cu. yd. of unstable rock and debris was carried out. To reduce interference with traffic to the minimum the single-line working was restricted to a short section of about ¾ mile by the provision of facing junctions and two temporary signal boxes.

■■■■

A New York Terminal Record

All records of passenger handling at the Grand Central terminal in New York of the New York Central System were broken in 1943. The total number of passengers using the station was 59,929,493—an increase of 17·4 per cent. over 1942. On Christmas Eve an all-time record of 222,005 passengers in a single day was reached, handsomely beating the previous record of 209,272 passengers exactly one year previously; on fourteen days in 1943 the numbers exceeded 200,000, compared with one day only in 1942. The maximum number of passengers handled over a full month was in July, 1943, when 5,591,350 used the station. In five other months the five-million-mark was exceeded, whereas the highest figure for any month in 1942 was 4,720,086 in December. Of the 59,929,493 passengers in 1943, 45·5 per cent.

were through passengers for long-distance trains, paying full fares, and the remaining 54·5 per cent. were reduced fare and suburban passengers and "commuters," or season ticket holders. A steady gain was recorded in both categories. War conditions, of course, were responsible for the increases. The Grand Central terminal is used by the trains of the New York, New Haven & Hartford to and from Providence, Boston, and New England points, as well as by those of the New York Central System, which owns the station.

■■■

Inductive Train Communication in 1885

The death of the American signal engineer, Mr. J. W. Lattig, recorded on page 504, recalls his work as Telegraph Superintendent of the Lehigh Valley Railroad, in experimenting with the inductive system of train communication invented by Edison and Phelps in 1885. This was installed also on other lines. It made use of the principle of ordinary induction between a special steel telegraph wire and metal plates arranged on the guard's van roof. It was described at length by Mr. H. Pollitt, afterwards Locomotive Engineer of the Manchester, Sheffield & Lincolnshire Railway, in his paper before the fourth International Railway Congress, at St. Petersburg, in 1892. He had been in communication with Mr. Lattig and learnt that the equipment worked satisfactorily. It was stated that in 1888 the advantage of the system had been practically demonstrated, when the New Jersey Division of the line nad been blocked by snow. During the storm the regular telegraph lines became inoperative; but the steel wire of the Edison-Phelps equipment, although buried in snow, remained intact and was of signal service for the transmission of messages between snowbound trains and directing officials and relief trains. Mr. Pollitt asked why it had not been more widely used, and concluded it was "only a question of time" before it became general.

■■■

Rail Defect Risks

Two recent derailments in the United States due to broken rails have drawn pointed attention to the fact that even the efficient modern standard of Sperry defect detection is no 100 per cent. guarantee of freedom from risk. In its development, the transverse fissure is a completely unpredictable defect. The more serious accident occurred on a track which had been patrolled regularly by Sperry cars, but between two such patrols, a small and undetected fissure nucleus had suddenly spread—possibly as a result of the passage over it of an out-of-balance locomotive or some bad flats on wheels—to an area of the rail-head that was well in excess of the danger limit. With the present combination of unprecedentedly heavy rail traffic in North America, and rail renewals deferred as a result of shortage of rail, it seems that the frequency of detector-car patrolling may have to be increased. Meantime the special attention of track staffs is being directed to the necessity for more careful inspection of rails in the road, and it is enjoined that this must be conducted on foot, preferably by as many as three men—one each for the web and foot of the rail on each side, and the third for the running surface—and not from a motorcar. The New York Central and other lines are using "mirror gangs," that is, four men with rail inspection mirrors, which enable a proper inspection to be made of the underside of the rail-head, under the direction of a foreman.

■■■

Locomotive Standardisation

Some remarkable facts concerning the lack of inter-railway locomotive standardisation were brought to light in an address given recently by Brigadier-General C. D. Young (Retd.), Deputy Director of the United States Office of Defense Transportation, to the American Society of Mechanical Engineers. Reviewing the locomotives built for U.S. railways in a year from October 1, 1942, to September 30, 1943, he showed that one typical group of 100 4-8-4 locomotives were purchased by 11 railways from 4 different builders. No two types were similar in design. Relatively to the average weight of rail in use by the railways concerned, there was a variation of 65 per cent. in maximum axle-loads. In the ratio of grate area to total evaporative heating surface there was a range of 34 per cent., yet, curiously enough, the rated tractive effort of the locomotives with the highest ratio of heating surface to grate area was less than that of the engines with the lowest ratio; indeed, little relationship appears discernible between hauling capacity, boiler capacity, and grate area, on which any uniform standard could be based. The speaker calculated that two different standardised designs would have met the needs of all the users, and would have simplified, cheapened, and expedited the building. He further stressed the advantage enjoyed in this respect by diesel-electric power, in the development of which American railways have all accepted makers' standard designs, and whether for high-speed passenger, freight, or shunting service, a very few standard types are now common to all the ? sing companies.

The Commons Debate on War Transport

IN the House of Common on May 5 when a debate took place on token votes for the Ministry of War Transport, Mr. P. J. Noel-Baker, Parliamentary Secretary to the Ministry, in a very concise but comprehensive speech, was able to give some slight indication of the gigantic task which the British railways have performed during the war. He mentioned, for instance, that 106 million more passengers were carried in 1943 than in 1942 and that the total conveyed, exclusive of journeys by season ticket-holders, represented an increase of 20 per cent. over pre-war. Moreover, the average distance of the journeys made had increased by more than half and the total passenger miles had risen by 60 per cent. over pre-war. Incidentally, he mentioned that 80 per cent. of the passengers who travelled over 200 miles were H.M. Forces and their dependants.

Freight traffic showed an even more impressive increase, as general merchandise tonnage* had increased by 86 per cent. over pre-war; heavy merchandise and minerals by 68 per cent. and coal traffic by 13 per cent. The average length of haul had also increased, with the result that in 1943 there was an increase of one million freight ton-miles every hour compared with pre-war. Further, every week about 7,000 extra trains are run for workers, and in a recent week no less than 2,400 special trains were run for the conveyance of personnel and Government stores trains. This great task had been accomplished in spite of a number of locomotives being sent overseas and over 110,000 railwaymen serving with the Forces. Most of these, he added, had been replaced by women who had done remarkably well.

Concerning passenger travel he intimated that nobody had yet suggested how passenger travel could be rationed (presumably because of the difficulty of defining an "essential" journey), but with passenger train mileage cut by 39 per cent. and train loading up by 120 per cent. compared with pre-war, unnecessary travel was discouraged by the discomfort experienced. Mr. Noel-Baker claimed that the burden of freight traffic on the railways had been reduced by the zoning of commodities such as beer, chocolate, biscuits, and so forth, representing a saving of 276 million ton-miles a year, and fish train mileage had been reduced by 35 per cent. After mentioning that 85 per cent. of the work in railway workshops was on repairs, he claimed that Government control had enabled great economies to be effected in clerical work by the adoption of flat rates for Government traffic; simplified procedure for dealing with claims and demurrage, the use of Forces railway warrants as tickets, etc., and the fact that all working expenses and receipts go into a common pool.

On the operating side he claimed that the Ministry obtained the better use of transport from the close co-operation of the railways which is now more effective than pre-war. In this connection he instanced the pooling of passenger and freight stock: sheets and ropes; the interchange of wartime manufacture and repair facilities between the companies; the exchange of locomotives and staffs, and the daily telephone conference of the traffic managers at which mutual assistance is planned in the light of the traffic situation. Incidentally, he expressed the hope that a similar beneficial practice might be adopted by the road haulage firms in the Ministry's road haulage organisation.

He then sketched in outline the Ministry's organisation for deciding when and how essential cargoes shall be loaded overseas, how incoming cargoes shall be disposed of and the distribution of traffic between rail, road and canal, and stressed the importance of the Ministry Diversion Room where every day, in the light of the latest information about empty berths, the staff decides what cargoes each ship is sent and the port which can best discharge it. Similarly, internal traffic is also very carefully planned by means of the Central Transport Committee and its twelve regional committees, controlling 78 districts, ensuring real and effective co-ordination of the transport system as a whole. He made clear, however, and freely acknowledged, the invaluable assistance given the Ministry in the task of planning, deciding and directing by members of the transport industry.

Pointing out that the different transport systems acted as agents of the Minister, he emphasised that the actual operation of the systems was performed by the different undertakings and companies themselves, and paid a tribute to the energy and devotion of the managements and the workers. Mr. Noel-Baker then spoke in appreciative terms of the forbearance and help of the general public and traders and intimated that, with the constantly increasing burden of essential traffic and the dislocations and diversions which the second front must mean, inland transport might be the "bottle-neck" of the national effort when the great assault begins. Nevertheless, in the knowledge that real transport co-ordination had been achieved, he

* We suggest that Mr. Noel-Baker should have used the words "net ton miles" and not "tonnage."

XUM

felt that the work of the Ministry had built up an instrument which would stand the strain of the coming operations.

From the labour side of the House disappointment was expressed that nothing had been said about the Government's post-war policy as to transport and Mr. Shinwell said that whatever happened in the future, a large measure of transport co-ordination had come to stay. He urged the complete electrification of the railways as rapidly as possible and suggested that if the companies could not pay for this, the State must pay and, if so, the State must exercise control. On this point Mr. Noel-Baker replied that detailed plans for the electrification of many miles of suburban and main-line railways had been, or are being, prepared—by whom he did not specify—but that how far these could proceed, or how soon, depends on many considerations. To several requests for an indication of the Ministry's post-war policy he suggested that long and careful technical study of each individual form of transport was required before the Ministry could begin to consider a general plan.

Mr. Noel-Baker pointed out that the Ministry's preoccupations in connection with the war were very heavy at present but when the war is over there would be a considerable period before control will end, ending with the somewhat non-committal phrase: "We can, I hope, look forward to a time when we can present a White Paper to Parliament saying what we are going to do." His reference to control lasting a considerable period after the end of the war has occasioned comment in various quarters and it may be pointed out that Article 33 of the Railway Control Agreement provides merely that control will be continued for "a minimum period of one year after the cessation of hostilities."

Co-ordination of Transport

A PROVOCATIVE article in the *Railway Review* of May 5 under the above heading opens with the remark that "under capitalism they (the railwaymen) are merely servants of the machine, whereas under socialism they wish to enter into their rightful inheritance and become masters of the machine." It is not often that such a revealing statement is made and the writer hastens to explain that "railwaymen do not desire national ownership of the railways merely that they should be run as benevolent institutions for the employees or that the Government may pension them off with subsidies." One may well wonder whether the writer was aware of the evidence given on behalf of the railway trade unions to the Royal Commission on Transport in 1929. Mr. C. T. Cramp then suggested that nationalisation might improve the conditions of the staff by way of increased wages or superannuation, and Mr. John Bromley said plainly that nationalisation should make it possible for the men to get some sort of pension.

After remarking that the welfare of the nation is inevitably bound up with the progress of her industrial development and her economic organisation, in which transport plays an essential part, the writer claims that "capitalist transport enterprise consists in exploiting that need and thereby raising a toll of profit from its service." He then adds the truism that modern industrial necessity demands a cheap and efficient transport organisation and argues that the railways must be brought under national ownership at once and steps taken to control transport by road until better roads can be built and a greater unification attained between road and rail. In this connection he makes the very novel suggestion that local authorities will have to play a greater part in future and that most of the road services will be developed upon their responsibility. We should have thought that local authorities were quite unsuitable, by reason of their composition, for undertaking such responsibilities, but, apart from this fact, as is frequently the case in articles of this character, no shred of evidence is produced to show that nationalisation will result in cheaper or more efficient transport or, indeed, better conditions for the staff, than are now provided by the railway companies under private enterprise. The writer realises that if the State purchased the railways, the question would at once arise of their relationship with other forms of transport, but his proposal that road transport would have "to be controlled until a greater unification could be attained between road and rail" is extremely nebulous, to say the least.

An illuminating statement on this point was made by the Royal Commission on Transport in 1931, namely: "We venture to suggest that had the railways belonged to the State when road transport was in its infancy, the latter would never have been allowed to grow to its present dimensions. The State would have been compelled to protect the revenue of the railways in which its capiital was sunk from the effects of unrestricted competition." We suggest, therefore, that should the railways be nationalised, sooner or later the State might well find it essential to purchase all public transport to prevent competition between State and privately-owned transport organisations. This would be a tremendous State venture involving some thousands of millions of capital, many thousands of operators, and a colossal risk, without the slightest guarantee that "cheaper or more efficient transport would result than under private enterprise."

Even the strongest advocates of Government control would admit certain rigidity in State administration, an unwillingness to take risks, and disinclination to give speedy decisions on important questions of policy; a tendency which is the reverse of the normal practice under private enterprise. In any case it may be pointed out that the railways are under a statutory obligation to prove to the Railway Rates Tribunal that they have conducted their business with efficiency and economy. This is to ensure that in earning their net revenue (which, incidentally is limited by statute to less than 5 per cent. on the capital invested), the companies have not inflated their costs by inefficiency nor failed to meet their responsibilities to the public. No similar check is made on the case of a State trading organisation like the Post Office and it is unlikely that the Government would continue the obligation in the event of the railways being nationalised. In that event there would not be the same incentive to efficiency or economy, quite apart from the absence of the profit motive.

The necessity for a greater measure of co-ordination of transport was generally accepted for several years before the war. As long ago as 1937 the Transport Advisory Council, composed of representatives of all forms of inland transport and labour, expressed the unanimous view that the best method of achieving co-ordination was to aim at securing for traders adequate alternative facilities, care being taken that the resultant competition was on fair terms. Nothing has since transpired to warrant any departure from that view. In 1939 the same Council recommended the relaxation of certain statutory regulations governing the conveyance of merchandise by rail for a temporary period of five years, during which time they hoped that such a degree of co-ordination would be established by means of voluntary agreements between the various forms of transport as would prevent uneconomic competition. In May, 1939, the Government accepted this recommendation, but the outbreak of war prevented it being implemented by legislation. Equality with other forms of transport is, in the matter of charging powers, an essential preliminary to co-ordination and it is to be hoped that the post-war plans of the Government will implement the pre-war intention.

Eire Transport Bill

THE Eire Transport Bill which resulted in the defeat of Mr de Valera's Government and will occasion a General Election in Eire on May 30, affects all forms of transport in the 26 counties, whether railway, road, canals, or air, although a large proportion of its provisions concern only the new transport company (Córas Iompair Eireann) which is to be formed by the amalgamation of the Great Northern Railway Company (Ireland) is proposed but it would appear that the Bill contemplates a control, so far as concerns Eire, over that company's rates and charges and facilities by railway and road and any abandonment of railways similar to that to be exercised in the case of the new transport company. Hitherto no question has arisen as to the abandonment of any Great Northern Railway lines situate wholly in Eire. Incorporation on July 1, 1944, of the new transport company is provided for in Part 2 of the Bill. As briefly noted in *The Railway Gazette* of April 28, the capital of the new company is not to exceed £20,000,000, of which not more than £16,000,000 is to consist of redeemable debentures bearing interest at the rate of 3 per cent. which is to be guaranteed by the Government, and not more than £4,000,000 of common stock, entitled to a maximum dividend of 6 per cent. The terms on which stocks of the new company are to be substituted for stocks of the Great Southern Railways Company and of the Dublin United Transport Co. Ltd., both of which are to be dissolved, were given in *The Railway Gazette* of November 5, 1943, on page 453. Paid up capital of the new company will at the outset total £13,401,290, consisting of £9,875,556 redeemable debenture stock bearing interest at 3 per cent. redeemable at par between 1955 and 1960 and £3,525,734 common stock.

The present Board of the Great Southern Railways Company consists of Mr. A. P. Reynolds (Chairman), Major Hugh A. Henry, the Rt. Hon. James MacMahon, P.C., and Messrs. James Dwyer and J. P. Goodbody. Mr. Reynolds is Managing Director of the Dublin United Transport Co. Ltd., the Rt. Hon. J

Macmahon is Chairman, and there are three other directors. It is proposed that the Chairman of the new transport company shall be appointed by the Minister for Industry & Commerce for a fixed term, and that he shall be eligible for re-election. No meeting of the Board may be held unless the Chairman is present and no decision may be reached without his concurrence. His remuneration is to be borne by the company. The Board may appoint one of its members as Managing Director, with remuneration by way of salary, commission, or participation in profits, or "by any or all of these modes." The first Board of the new company is to consist of the Chairman together with such persons as were immediately before the establishment date (July 1, 1944) "stockholders' directors" of either of the two dissolved companies, but the permanent board is to be reduced by the time of the ordinary annual meeting in 1948 to the Chairman and a maximum of six stockholders' directors. The qualification of a stockholders' director is to be the holding in his own right of not less than £1,000 common stock.

Every officer or servant of either of the dissolved companies, whose services become redundant within six months after the establishment date, for reasons arising directly or solely as a result of the amalgamation, will be entitled to compensation, calculated on a basis prescribed in the fifth schedule. Matters in dispute will be subject to arbitration. Appointments to clerical grades are to be by means of open competitive examination, in which Irish is to be a compulsory subject. The language of public notices, signs and passenger card tickets will be Irish, or, alternatively, both the Irish and English languages may be used. It is provided that the Minister may by Order require the company to establish and maintain such transport services or to alter existing services as he thinks fit.

A Transport Advisory Committee is to be formed consisting of a Chairman nominated by the Minister for Industry & Commerce, one ordinary member nominated by the Minister for Agriculture, and three ordinary members nominated by the Minister for Industry & Commerce, experienced respectively in commercial and industrial affairs, labour matters, and transport affairs. Remuneration is to be paid by the State, and the Committee will report to the Minister on transport facilities, charges, etc. Revision and alteration in the classification of merchandise or in maximum railway rates may now be effected by an Order of the Minister for Industry & Commerce instead of requiring the sanction of the Railway Tribunal as hitherto. The Railway Tribunal is to be abolished and its functions transferred to the High Court on matters involving legal issues and interpretation of the law, and to the Minister for Industry & Commerce in matters of fact and practice.

With regard to merchandise carried by road no restrictions are proposed on the right of the individual to carry his own goods in his own vehicles, but certain amendments to the Road Transport Acts are intended to secure the better enforcement of the Acts. Provisions regarding undue preference and reasonable facilities already applicable to railway and canal undertakings are extended to all road merchandise licensees.

Anglo-Argentine Railways and National'sation

THE possibility of railway nationalisation has long been discussed in Argentina and recently it has again assumed prominence. Since the return to Great Britain of the mission of directors there has been a good deal of speculation as to what transpired during their discussions in Argentina. The publication, on March 27, of an article advocating the purchase by the Argentine Government of the British railways operating in Argentina, in the weekly shipping journal, *The Times of Argentina*, caused a stir in local railway circles. In the ordinary course of events, the article probably would have passed unnoticed, except by the managements of the companies, as *The Times of Argentina*, an English language publication mainly devoted to shipping matters, has a restricted circulation. However, the Press Bureau of the Ministry of the Interior immediately handed to all newspapers a Spanish translation of the article. The only morning daily to publish it was *La Nación*, giving it prominence in its editorial page, but without making any comment. *La Prensa* and *El Mundo* seem to have ignored it completely.

The article referred to recent steady demand for Argentine railway securities in London, and said that there was no doubt that something was brewing in London. It continued: "The three railway directors, Lord Forres, Sir Montague Eddy, and Mr. Drayton, are all in London again after their lengthy trip to Buenos Aires. It is considered that their visit to the local government officials cannot have been barren of results, although up to the present no statement has been issued. We would also like to refer to the statement made by one of the Argentine Government chiefs in replying to a request of the railway employees and labourers for advances in wages. He said that not only is the situation of the men occupying the attention of the Government, but also that of the railways and shareholders. There was a definite hint here that the Government has given some description of assurance that conditions will be improved all round.

"There is, of course, the suggestion of the 'nationalisation' of Argentina's railways. Given the enormous favourable trade balance of this country, a tendency which is liable to become more definite as the months pass, inasmuch as there is every possibility of larger shipments of grain and meat and no probability of increased importation, it should be reasonably easy for the Government to carry such a proposition into effect in the course of the next few months. We may mention that the favourable trade balance of this year is liable to be greatly in excess of last year's record. Candidly, we are fearing that the balance will reach as much as 1,500 or 2,000 million pesos. Such an addition to our local currency, or, let us say, such an addition to the volume of idle money in our bank vaults, will cause very considerable financial perturbation. It would not be at all a bad scheme to prevent such 'indigestion' by providing a method of investing the money. It is our conviction that throughout this year, even if the war finishes, Argentina's exportation will tend steadily to increase, whereas we cannot see that there is any likelihood of much augmentation in our purchases abroad. The favourable trade balance is already creating headaches in banking and financial circles. It looks as if there will be little alleviation unless some enormous scheme such as we have outlined can be carried into effect."

The Times of Argentina went on to say that it was natural that the British railways in Argentina could not be bought out by paying the prices at which the shares and debentures were quoted at the present time. A proposition would have to be made giving the holders a reasonable price. "This, of course, should not be par. The railways should be valued very carefully and then an offer made to pay by the issue of 4 per cent. national bonds at par. If the money is demanded on the other side, then these fours should be issued locally and the income derived therefrom cabled to London for payment in cash. The Government could make more than the interest by the working of the railways. We are not nearly as frightened of the result on our commerce and industry as we were some years ago. The Argentine now understands railway work and can carry it out successfully. The State Railways here are well managed. So long as they keep out of the clutches of politicians they will probably continue to be well managed. Furthermore, many of the vexatious regulations and rules which bear heavily on the privately-owned companies today would quickly disappear when it became a matter of the Government—say the public—losing thereby.

"Candidly, we consider that the Government could count on a local subscription for these railway bonds of between 1,000 and 1,500 million pesos. The money is pouring into the country and it could be put to useful purposes in this way. The nationalisation of the railways has long been a dream of the local public. We believe that no finer opportunity to carry the thing through will ever be offered than in this year of our Lord, 1944. Moreover, we consider that the transaction would do much to dissipate the fear of inflation which is bearing so heavily on the shoulders of our financial community. Another point is that the British Government itself would approve such a measure. The money received for the railway shares and debentures can very easily be utilised in business near home. Still another point is that it would be an excellent method of releasing many millions of blocked funds in London . . . for not all our exports are paid in cash locally. They are paid in sterling which is temporarily blocked in London.

"This is not the first time that we have referred to this matter, but hitherto we have treated it as of something in the dim and distant future. The huge favourable trade balance is forcing us to treat it today as a business that should be studied without delay. It would not surprise us in the least to hear that the three railway directors who have now arrived in London are discussing some such scheme with the London Boards. The disadvantage from the British point of view is that machinery and replacement orders of the Argentine railways might not be placed in Britain. This, however, is a small inconvenience. Furthermore, it is reasonable to assume that British suppliers will be given preference in that all the present material hails from that country and it is not wise to mix materials. Furthermore, British firms have specialised in railway material and they should be able to meet any competition from other countries, especially after this war. In any case, we cannot see that the railway shareholder should be prevented from accepting a good offer merely because some of the concerns supplying his railway with material may lose business."

An editorial published in *The Buenos Aires Herald* of

March 30, entitled "Where there is Smoke . . ." stated that it was the first time that official attention has been drawn in this way to the views of a local member of the Press, adding that "the idea, of course, must be to give those views greater publicity. It is not the first time that such a scheme (the purchase of the British-owned railways) has been propounded, but it is the first time that officialdom has drawn public attention thereto. It is possible, therefore, that our contemporary struck the nail on the head. The many meetings between the three directors and the local authorities might well have had such a scheme on their agenda. Secrecy on the matter has been impenetrable, but the recent movement (otherwise hardly reasonable) in the London quotations gave at least one scribe the idea that where there was smoke there must be fire. The decision of the government to draw the attention of all other organs of the Press to his remarks on the subject, now gives the impression that his guess may not have been far off the mark." The editorial bears the initials of Mr. J. J. Rugeroni, who is also owner of *The Times of Argentina*.

Commenting on the article in *The Times of Argentina*, the *Economic Survey*, a financial and economic weekly which circulates privately in Buenos Aires in banking and business circles, states that the problem in itself is not new, but it attaches some importance to the article's translation by the Press Bureau of the Ministry of the Interior, and declares: "It is no secret that this matter has been extensively discussed during the visit made by the London Committee, headed by Sir Montague Eddy, and that no basis of negotiations could be reached." It goes on to suggest that the railways should make known their opinion on the matter of the amount that should be paid for the British railways. "If the railways are willing to accept the amount mentioned, we think that a deal should be closed at once, as the price appears to be rather cheap. Otherwise, they should declare so quite openly."

UNRRA and Transport

SUCH is the progress of events that it may be in the very near future that the United Nations Relief & Rehabilitation Administration, which was established on November 9 of last year, will have occasion to bring into use the preparatory work upon which it has been engaged in recent months, and the relationship of this organisation to transport becomes a matter of topical interest. The first step of the Administration was to appoint a council to lay down its general policy, and at the first session of this council (from November 10 to December 1 last) important resolutions were adopted. It was agreed that the Director-General should exercise executive functions, and that separate European and Far Eastern sections should be established. One of the resolutions was that it should be the task of UNRRA to participate, in conjunction with military and other appropriate authorities, in the organisation of transport of relief supplies. This resolution presumed therefore that a separate European Inland Transport Authority should be in existence and this is logical, for, although much of the traffic which will fall to be carried on inland transport systems will be relief and rehabilitation supplies, and although the participation of UNRRA in the supply of transport equipment required for the purpose will be important, it is not difficult to envisage many other traffic demands. Some of the more obvious are military movements and internal traffics; a measure of international movement, connected probably with outside relief, independent of that applied by the UNRRA organisation, may also be expected. Many restoration problems are inevitable in connection with through workings, the co-ordination of various means of transport, the equipment of which has been gravely depleted, and, by no means least, it will be necessary to cope with administrative and staff perplexities, and a number of other matters not directly connected with relief.

One of the tasks which will fall to UNRRA is the rehabilitation of public-utility services, which will call for equipment to repair and restore power supply and communications, and to assist industries manufacturing transport equipment and suchlike products. It will also have the responsibility of repatriating the displaced peoples of Europe. This will provide a major problem in international traffic on Europe's transport system, for it is estimated that the number of repatriees is over 20,000,000 persons. The closest co-operation will have to be effected between the Military Command, UNRRA and the Inland Transport Authority. It is clear that, in all fields of mutual interest, common action by the Allied Governments will be required, and there will be a need for the closest contacts between the Allied Governments in their own liberated territory and the Allied authorities in occupation of enemy countries, and of course there should be the closest contact between the Inland Transport Authority's departments and the European national transport administrations.

Supplies for the Transport Authority will most likely be met through UNRRA, and will include transport equipment for railways, roads, inland waterways, ports, and storage, as well as repair shops, workshop machinery, ship repair yard equipment, assembly plants, and so forth. It will be left to the Transport Authority to schedule its requirements, and in many cases it is expected that the solution of immediate needs will be found in the provision of a pool of certain transport equipment for use wherever the requirement is most urgent. It will be obvious that in all these matters a skilled and experienced staff will have to be provided, and, to help meet this need, skilled workers may have to be repatriated under a priority scheme. Part of the pool of railway rolling stock will probably be created by supplies of new vehicles, and, no doubt, other rolling stock will be taken over from the military. Nor is it unlikely that it may include equipment which has been the property of the enemy.

An essential pre-requisite for the efficient working of supplies, of the kind and magnitude which will face UNRRA, is the simplification of all formalities for essential through traffic, and in this connection it is highly desirable that an agreement should be reached on the abolition of transit duties on essential supplies. The speedy and unhampered movement of officials, who are the employees of the Inter-Allied Authorities, will be important, and in this connection there will be need for a Central Inland Transport Authority to deal with matters of this kind. No doubt this is one of the points which is receiving the full consideration of the interested parties at present.

LETTERS TO THE EDITOR

(The Editor is not responsible for the opinions of correspondents)

The Exeter Express

Northwood. May 1

TO THE EDITOR OF THE RAILWAY GAZETTE

SIR,—Without in any way disparaging the fine performance of the first Exeter Express on May 1, 1844, referred to in your issue of April 28, I should like in fairness to the memory of other companies to point out that a mistake has been made in quoting Acworth's "Railways of England" to the effect that the average speed of all railways in the country was about 21½ m.p.h. in *1845*. Acworth states on the authority of a paper read before the Statistical Society in the spring of 1843 that the average speed (exclusive of stoppages) on all lines was 21½ miles an hour. The paper was read by Mr. C. R. Weld and is based on Board of Trade Tables; it is published in the Society's *Journal*, Vol. VI, p. 249, but deals with train speeds in 1842 and it is to that year, and not to *1845*, that the average speed of 21½ m.p.h. refers.

Even in 1842, in spite of the low average when all the lines are included, on some lines the average speed exclusive of stoppages was quite good: *e.g.* Northern & Eastern 36 m.p.h., Great Western 33, Newcastle & North Shields 30, North Midland 29, London & Birmingham 27 m.p.h.

By 1845 things had much improved, *e.g.* the London & South Western in May of that year put on a train between Nine Elms and Southampton, 77 miles 34 chains, to do the journey in two hours, calling at Basingstoke Station, and also with a service stop near Bishopstoke for the Gosport coaches—speed *including* the stops—just under 39 m.p.h., with a similar up timing.

Yours faithfully,

REGINALD B. FELLOWS

BRITISH AUSTERITY LOCOMOTIVES.—Below are given comparative details of the main dimensions, etc., of the British-built 2-8-0 and 2-10-0 austerity locomotives:

	2-8-0	2-10-0
Cylinders (2), dia.	19 in.	19 in.
Piston stroke	28 in.	28 in.
Piston valves, dia.	10 in.	10 in.
Piston valves, max. travel	⅜ in.	⅜ in.
Wheels, coupled, dia.	4 ft. 8½ in.	4 ft. 8½ in.
Wheels, leading truck, dia.	3 ft. 2 in.	3 ft. 2 in.
Wheelbase, coupled	16 ft. 3 in.	21 ft. 0 in.
Wheelbase, total	24 ft. 10 in.	29 ft. 8 in.
Boiler heating surface		
Large tubes	451 sq. ft.	589 sq. ft.
Small tubes	1,061 sq. ft.	1,170 sq. ft.
Firebox	168 sq. ft.	192 sq. ft.
Total evaporative	1,680 sq. ft.	1,951 sq. ft.
Superheater surface	310 sq. ft.	423 sq. ft.
Combined total	1,990 sq. ft.	2,374 sq. ft.
Grate area	28·6 sq. ft.	40 sq. ft.
Boiler pressure	225 lb. per sq. in.	225 lb. per sq. in.
Tractive force (85 per cent. b.p.)	34,215 lb.	34,215 lb.
Adhesion weight	61½ tons	67½ tons
Weight of engine in working order	70½ tons	78½ tons
Weight of tender in working order	55½ tons	55½ tons
Total weight of engine and tender	125¾ tons	134 tons
Max. axle load	15 tons 10 cwt.	13 tons 10 cwt.

The Scrap Heap

A Debt to the Foreign Office

The young man in civilian clothes in the first class railway compartment suffered in silence while the brass-hat gave his opinion rather loudly to his companion about young men who ought to be in uniform. As the train drew in the victim turned on his persecutor.

"Permit me to explain, sir, that I am in a reserved occupation. Let me add that I am in the Foreign Office. And, further, add that if it hadn't been for the Foreign Office you would never have had your bally war."—*From "The News of the World."*

* * *

. . . All this Geoffrey saw out of the corner of his eye as he turned left towards the two universal wonders of youth—the station and the river.

The way down to the railway line was unimportant until the iron footway bridge. There, leaning through a criss-cross lattice, he saw and actually tasted the Yarmouth Express. The station was on the middle sweep of the S curve and as the blue locomotive went underneath it shook like a dog coming out of a shower. The stubby brass-flanged funnel whirled a hot fume of gas around his feet, frightening the aunts.—*From "Thorofare," by Christopher Morley.*

* * *

The Rear Admiral's Dress Sword

The removal of some cupboards in the L.N.E.R. Sunderland station left luggage office, which was being reconstructed after air raid damage, led to the discovery of a naval officer's dress sword, bearing the name C. G. Stuart on the hilt scabbard safety plate. The stationmaster, with the assistance of the local naval officer, traced the owner, Rear Admiral C. G. Stuart, who is serving overseas, and wrote to him. A reply has been received from Rear Admiral Stuart, stating that so far as he can recollect the sword was lost during the last war. How it got to Sunderland, a place to which he has never been, he was at a loss to say! At his request the sword has been despatched to Mrs. Stuart in Edinburgh.

* * *

Bad Outlook for Transport

It has been estimated by Enid Charles in a book called "The Twilight of Parenthood" that the population of England and Wales, which is at present 45 million, will be in 200 years' time rather less than six million—less, that is, than the size of Greater London—unless the birthrate shows a marked increase. Every nation of Europe is almost equally certain of a decline in population, with the exception of Soviet Russia.

Now everybody, as I say, thinks this is a disaster. Why? What is the point of having all these people? Isn't our island overcrowded as it is? In the eighteenth century the population of England and Wales was between five and six million. In 1800 it was eight million; in 1900 32½ million; today it is 45 million. Could we employ them all? We could not. We had a surplus of two million unemployed on our hands. Could we even house them properly? We could not. Millions lived in slums and hovels. Could we feed them properly? We could not. Nearly 20 million of them, according to Sir John Orr, were living on a diet insufficient for perfect health. Could we educate them properly? We could not. Nine out of ten left school at 14. Why, then, clamour for more, when we cannot deal adequately with the numbers that we have?—*Professor Joad in "The Sunday Dispatch."*

* * *

L.M.S.R. Hospital Fund

Hospitals and similar institutions in England, Scotland, Ireland, and Wales last year benefited by £182,273 from the L.M.S.R. Hospital Fund. The 66th annual report shows the total receipts for 1943 to be £233,386, of which £169,177 was realised by the employees' weekly subscription of 3d. The L.M.S.R. Company's donation was £49,339. The Scottish division receipts totalled £33,861, and the payments, including £19,148 to hospitals, £2,510 to nursing associations, £3,585 to railway convalescent homes, and £4,650 in allowances, amounted to £30,334.

* * *

The French Riviera is ready for battle. Cafés of world-wide fame are the centre of minefields. Where the Blue Train ran a panzer train moves slowly along.—*Berlin radio.*

* * *

Tailpiece

(The L.N.E.R. is experimenting with telephones on trains)

How nice it was to board a train
And find a corner seat;
To get behind a pipe and book
And rest my weary feet.

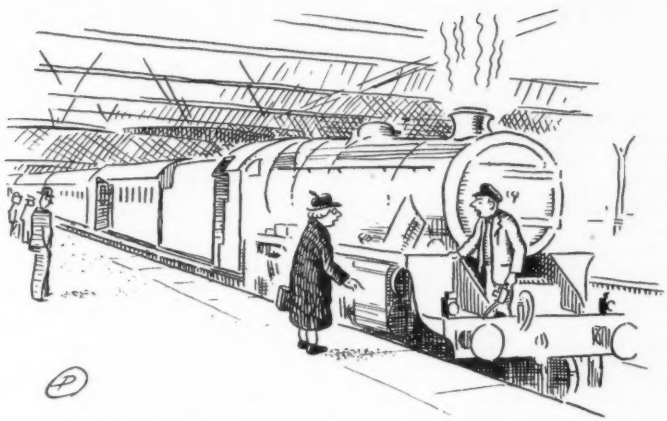
Or else to sit and ruminate,
And watch the country-side;
With no one to disturb my peace—
I could enjoy the ride.

But now I hear the telephone,
With all that it entails,
Will shortly be installed in trains
When running on the rails.

No longer can I hope to spend
A quiet day in travel;
For once my number's known *en route,*
They're sure to me unravel.

And when I want to rest awhile
In speeding "Up" to Town,
Some client will, perforce, demand—
That I should journey "Down."

W. E. N.



"How do you find your way in the blackout with that little lamp?"

"The train now standing at platform five is the 1.43 for Hamswitch, Gloode and Beigewater, and will Harry Jones, porter, please get a move on with my sandwiches and stop gassing to those Wrens"

[Reproduced by permission of the proprietors of "Punch"

OVERSEAS RAILWAY AFFAIRS

(From our correspondents)

INDIA

Railway Budget Speech

In the course of his speech in the Central Assembly on February 16 last, introducing the railway budget for 1944-45 (see also *The Railway Gazette* of February 25), Sir Edward Benthall, War Transport Member, Government of India, gave a picture of rising receipts and expenditure combined with a growing strain on the railways. With no increase in the numbers of locomotives and coaches, and a negligible increase in the number of wagons, they had achieved 8·6 per cent. more ton-miles and 30 per cent. more passenger-miles in the first six months of the current financial year. Steps were being taken to increase bus services in certain areas, and the publicity campaign against unnecessary travel was being intensified.

There had been delay in delivery of locomotives and wagons, but a steady supply of engines was now arriving. It was expected that 106 broad-gauge and 214 metre-gauge locomotives, and, respectively, 1,900 and 2,950 wagons, would have been received by March 31, 1944; the arrival during 1944-45 was expected of 284 engines and 5,824 wagons (broad gauge) and 288 engines and 10,626 wagons (metre gauge).

For the repair of locomotives and wagons, workshop capacity was being reclaimed steadily from munitions manufacture, although the latter still employed 20,000 persons.

Increasing Line Capacity

To increase line capacity, the Government was doubling 750 miles on certain sections of the Bengal-Nagpur, Bengal & Assam, and East Indian Railways; a fourth line was being added between Asansol and Khana.

As a measure of security against the interruption of communications, a scheme (to cost Rs. 24 lakhs) for providing wireless communication between important control points was well advanced.

Coal stocks had fallen during 1943-44 to the lowest point on record, and drastic steps, including greater production from railway collieries, had been taken to render the position more secure.

Railway Staffs

Sir Edward Benthall paid tribute to the loyalty of the railway staffs, and said that the Government had endeavoured to carry out its undertakings to the letter and in a spirit of appreciation of the staffs' services. It had been decided to abolish the Lower Gazetted Service in due course, but this was not being undertaken at present, to avoid piecemeal reorganisation. A comprehensive review of the salaries of all Government servants, in the light of expected economic conditions, was foreshadowed.

CANADA

Canadian Railways and the War

Mr. D. C. Coleman, Chairman & President of the Canadian Pacific Railway Company, recently gave an address to members of the Royal Montreal Curling Club on the importance of transport to war operation, with special reference to the part played in the present war by Canadian railways. Mr. Coleman said that Canadian railways had increased their movement of tons of freight a mile from 31¼ billion (31,250,000,000) in 1939 to 63¾ billion in 1943, and that passenger traffic had increased from 1¾ billion passengers moved one mile to 6½ billion in the same period. The average load a freight wagon had risen from 27·1 to 33 tons, and the average number of passengers a train from 48·3 to 147. Wartime traffic was essentially different from that of peacetime, and in war conditions special types of equipment had to be improvised; track had to be laid to serve industries created by the war; changes had to be made in the routing of traffic; services had to be supplied for new or enlarged communities; and labour had to be provided and trained, and existing labour forces often had to be transferred to other localities. He expressed gratitude for the sympathy and support of the Canadian public, which willingly had accepted necessary inconveniences in connection with rail transport.

Mr. Coleman said that his company's ocean-going fleet had been placed under the direction of the British Admiralty, and that the ships had played a worthy part in the war on many seas; railway shops had been used extensively for the production of weapons and other war supplies; Canadian Pacific Air Lines had provided war transport of the utmost importance; and the communications departments of the railways had extended their facilities to supply the wireless and telegraph services required by the various war departments. The railways had proved of the utmost value to Canada at the most critical time in her history.

That the railways had been able to meet the shock of war was the more creditable in that in 1939 Canada had been emerging from the worst business depression of modern times, and that the situation of the railways had been aggravated by competitive forms of transport, subsidised directly or indirectly by the public treasury. Although these conditions had brought the railways of North America to a relatively low point of activity, and in some cases to actual insolvency, the managements had persisted in maintaining track and equipment in a high state of efficiency.

UNITED STATES

The 1943 Freight Record

The Association of American Railroads has announced that the total of revenue freight moved during the year 1943 by American railways amounted to the record figure of 725,447,456,000 tons. The total exceeded that of 1942 by 13·7 per cent., and that of 1941 by 53 per cent.; compared with that of 1939, freight traffic had more than doubled, with an increase of 118 per cent. For the month of December alone it was 8 per cent. higher than in December, 1942, so that steady expansion appears to continue.

"Redcaps" Lose their Case

For some time the porters at United States terminals and other stations, usually known as "redcaps," have been agitating to be regarded as a class separate from other passenger station employees, porters at goods stations, and clerks, for purposes of negotiation with employers under the Railway Labour Act; but such separate recognition has been refused by the National Mediation Board. One ground of the application has been that the clerks' union, which purports to represent station porters among other employees, has not admitted these men to full membership on account of racial discrimination, for the majority of them are men of colour. The so-called "St. Paul redcap" case has now been carried to the Supreme Court, which by refusing a rehearing appears finally to have disposed of this litigation.

Missouri Pacific Diversion

Work is proceeding on an important diversion near Riverton, Louisiana, where this section crosses the Ouachita River, of the Monroe-Alexander route of the Missouri Pacific Railroad. Bridge No. 105, over the river, was opened, with the line, in 1891, at a time when 64-ton locomotives were in use; with subsequent strengthening it was able to carry 152-ton engines. But the heavy increase in traffic brought about by war conditions has made it desirable to work the heaviest Missouri Pacific locomotives, which weigh 250 tons, over this route, and advantage is being taken of the bridge replacement to realign the track for some two miles and eliminate several severe curves of 22 ch. radius.

The first stage of the work has been to replace a sharply-curved timber trestle, 763 ft. long, over the Bayou Duchesne by an embankment on a much flatter curve, which has absorbed some 470,000 cu. yd. of filling; this section of line, 3,500 ft. long, is already in use. Four reinforced-concrete piers for the new Ouachita River Bridge, each 83 ft. high, resting on 70-ft. piles, are practically complete; there will be three 165-ft. spans, the centre one a vertical lift span, with concrete trestle approaches; that on the north side 180 ft. long; and that on the south side 90 ft. The decision to divert the line to a new bridge site has avoided any interruption of traffic. The work will be completed during 1944.

ARGENTINA

State Railways Administration

The resignations (see page 485) of the General Manager and the other members of the administrative council of the Argentine State Railways, which have deprived the system of a body of capable men, did not altogether come as a surprise. The Administration was attacked in the course of a petition [see also last week's issue of *The Railway Gazette*] presented on March 20 by a delegation of members of the railwaymen's union, Union Ferroviaria, to the President of the Republic. The petition requested the "intervention" of the Administration, on the alleged grounds that its chief executives openly obstructed the exercising by employees of their rights; that, even in insignificant labour conflicts, they always made arbitrary resolutions and gave excessive punishments; that they imposed too-long working hours; that they ignored the claims of employees; and that they acted as though public property belonged to them, forgetting that the State Railways formed a part of the nation.

In his letter of resignation to the Minister of Public Works, Señor Huergo points out that he has been attached to the Administration since 1932; and has witnessed its transformation, largely due to his predecessor in the General Managership, the late Señor Pablo Nogues, whose work he has endeavoured to continue. He has seen the substantial growth of the system, and, due to the wise handling of finances, the trebling of receipts and the passage from a chronic deficit to a surplus. Modern developments have been pursued, provision made for adequate renewals, and working conditions improved "without haste but without pause." Señor Huergo concludes by saying that he views optimistically the future of the State Railways so long as political influence is excluded from the Administration. (*See editorial note, page 485*).

Signal Engineers and the Future*

Peace conditions will place new problems before signal engineers, who must be preparing to meet them

SIGNAL engineers, in common with other technical men, are facing new problems, at home and throughout the Empire overseas. Electric traction is likely to supersede steam on many sections of line and terminal stations and marshalling yards will be considerably improved. There will be a great increase in air transport and railway connections to the new airports will be required.

These programmes will call for the most modern signalling and communications, with extensive traffic control facilities. There will be the question of how far wireless can be economically used for communicating between guards and drivers, or between trains and their passengers and stations, for business or other purposes. There will probably be difficulty in obtaining certain classes of material and also labour, for a period, but much time will be required in making the preliminary plans for future work in any case.

The Institution of Railway Signal Engineers can provide assistance to those engaged in preparing these plans by discussing the various technical problems that arise when applying modern signalling developments. During the war there has been much extension to yards, doubling of tracks, installing of crossing loops, and so forth; and the information obtained from their operation will prove of value for future work.

Telecommunications have made great strides during the last few years and the details are so specialised that they offer a rich field for study. Both telecommunication and signalling greatly concern the operating and mechanical engineering departments, and to a lesser extent the civil engineering department, so that visitors from them at signal engineers' meetings are much to be desired when a paper appealing to them is being dealt with. Standardisation of materials and designs has been undertaken already by signal engineers, to the benefit of both railways and manufacturers, and standardisation of practice would also be a great help.

Signal engineers and contractors might pool their resources and thus contribute to greater economy and simplicity in construction and maintenance. Modern signalling calls for an ever higher standard of maintenance and therefore of staff instruction and training. By pooling the available sources of knowledge and experience it might be possible to produce a manual of maintenance duties, which could serve as a guide to all the staff engaged on that class of work. The members of the British Empire form a big family, well spread over the globe, and in almost all our possessions are railways. The construction and engineering of many are unique and their history full of interest. A knowledge of the conditions obtaining in these localities is desirable for those who are thinking of earning their livelihood on railways overseas. The war has interfered with the work of the Institution, but the position has now improved and it is imperative to grapple with our problems now, that the wheels may be turning smoothly when we are able to think of more pleasant things than war. The Institution of Railway Signal Engineers is an imperial association and is called to make its influence felt throughout the Empire and be the symbol of the means by which a knowledge of signalling is dispensed. It is the responsibility of each member to contribute to its welfare, as his opportunities afford.

* Summary of Mr. R. F. Morkill's Presidential Address to the Institution of Railway Signal Engineers on April 25

Locomotive Axleboxes

Summary of discussion on the paper by Mr. E. S. Cox, M.I.Mech.E., M.I.Loco.E., Chief Technical Assistant, Chief Mechanical & Electrical Engineer's Department, L.M.S.R.*

Sir William Stanier observed that on the G.W.R., in his younger days, the "Badminton" class of 4-4-0 locomotive had the coupling rods at the same angle as the outside cranks, an arrangement which they kept for a number of years; in the later "Atbara" class, however (a development of the "Badminton's") a reversion was made to the setting of the coupling-rod pins at 180 deg. to the inside cranks. He emphasised the difficulty of keeping dust, ashes, and water away from the trailing axleboxes of 4-6-0 locomotives, where the axle concerned was underneath the middle of the ashpan. Pegged-down bronze liners were hopeless in that position. The solid bronze liner bolted on the horn itself, bearing on the hardened steel face of the axlebox, was evolved as a result of experimental work; it was, however, only a palliative, and much trouble was still encountered. In India, too, much trouble was caused by sand which produced excessive axlebox wear, but he had not yet learned that the problem had been solved.

Lt.-Colonel H. Rudgard expressed the opinion that if an engine was to run properly in service, its bearings must be oiltight. Engines should be weighed again after being lifted for hot boxes; when changing springs, too, care was needed to ensure that the weight was unaltered.

Mr. D. D. Gray referred to the Vitry tests on the 2-8-2 locomotive sent there by the L.N.E.R. The axleboxes had three white-metal pads keyed to serrations machined right across the box. The pads were divided by a vertical centre line, and each bar was provided with a machined oil groove. The back groove was fed by mechanical lubrication and the front bar by the auxiliary oil feed. The boxes were 9½ in. by 11 in., and in service gave no trouble; not one hot box had occurred before the engine went to Vitry, even at speeds of over 80 m.p.h., and during special load-capacity tests. On the stationary testing plant, however, the heating of the boxes was a constant anxiety. Despite trials with various qualities of oils and white metals, the trouble persisted. He thought that that showed the limits to theorising about oil films in locomotive axleboxes, and the need for regarding trouble-free service under traffic conditions as the final criterion.

Mr. J. E. Spear thought that the author had overlooked some of the advantages of roller bearings, such as reduction in running resistance to 3-4 lb. per ton, as against 15-18 lb. per ton with plain bearings. Both Sir William Stanier and Colonel Rudgard had referred to the need for keeping bearings oiltight. That need was met by the roller bearing. Moreover, the absence of wear in roller bearings enabled the predetermined clearances to be maintained, within a few thousandths of an inch, throughout the life of the bearing, with corresponding improvement in tyre life. Prevention of wear in horn blocks also lengthened tyre life. The trunnion horn guides of the Turbomotive were of Chromax steel. By fitting 13-14 per cent. manganese steel liners on the horn cheeks to work in combination with the Chromax steel box, a mileage much in excess of the figure (158,000) mentioned by the author could be reached between repairs. The company with which he was associated would have no compunction in putting forward a suitable roller bearing for an inside-cylinder 0-6-0 locomotive, which would have about the same proportions as the plain bearings. In the Turbomotive the ratio of the static to the resultant loads was about 7/1, much worse than the corresponding ratio for a 0-6-0 locomotive, though admittedly the characters of the two loadings were very different. Moreover, the resultant loading on the Turbomotive was at an angle of only 9 deg. to the horizontal, which was considerably worse than the worst value (15 deg.) in the author's engine. That low angle for the resultant loading was one of the main reasons for the decision to fit roller bearings to the Turbomotive.

Mr. W. S. Graff-Baker referred to wear on horn guides in the bogies of L.P.T.B. rolling stock. The original American bogie design had cast-steel horn guides and cast-steel boxes. Later, cast-iron horn blocks were used with cast-steel boxes. At every overhaul some renewal was needed. Present practice, however, involved the welding to every axlebox and horn guide of a manganese-steel liner, either pressed or cast. These liners never wore at all, and ran with little or no lubrication. The cars were overhauled at a mileage of 200,000 and went into service again with the same axleboxes and horn guides.

Mr. W. Cyril Williams referred to the author's questions, in presenting the paper, "How can bearing surfaces be made to stand up to 120,000 miles' running and over, between reconditioning?" and "What are the possibilities of different materials, improved lubrication, and dust shielding?" In a batch of big engines for an overseas railway, the average mileage to dropping the wheels—necessitated by flange wear alone—was 117,000. No hot bearings had occurred. The bearings were not, however, lubricated by oil.

Mr. M. A. Crane said that the paper did not cover the possibility of using a pressed-

* "Locomotive Axleboxes" read before the Institution of Locomotive Engineers on April 20. A summary was published in our April 28 issue

in brass with a solid-bronze box; that might provide a workable solution. The top feed should be abandoned, now that the pad was a success, for its retention allowed the entry of foreign matter into the bearing. An emergency pump might be provided, in case the pad ever failed. As to repairs, on many overseas railways the white-metalling of the boss faces and horn faces of axleboxes was hopeless, especially when sand could be thrown up on to those faces; a bronze liner was the only alternative. The author's desired mileage between reconditioning could, he thought, be achieved by grease lubrication.

Mr. W. H. W. Maass remarked that the South African Railways had had very good service for ten years from roller bearings for engine carrying (but not driving) and tender wheels. These bearings being temporarily unobtainable, they had turned to the Isothermos axlebox for tenders, with which their limited experience had been very satisfactory. They used grease lubrication for coupled axleboxes, except on shunting engines where oil was used, as the heat needed for effective grease lubrication was not developed on such work. He could not understand why grease lubrication had not been adopted in Great Britain.

Mr. A. R. Ewer mentioned the influence of brake applications in breaking the oil film on the journal and in setting up stresses in horns and axleboxes. Drivers had told him how hot boxes had developed after the descent of a bank, during which several short, sharp brake application (instead of a continuous, gentler application) were made. He understood that F. W. Webb did not fit powerful brakes to his locomotives because he thought that it would be detrimental to their wellbeing to do so.

Mr. O. V. S. Bulleid said he thought that hot boxes could not be cured merely by altering the position of the oil groove, or by the presence—or absence—of white metal. Something could be done, as the author showed, to mitigate the trouble by attention to the quality of the oil. In former days, oils for the best engines contained 75 per cent. of rape, with 25 per cent. of rape for other engines, and none for the shunting engines. He had had the task of "nursing" the 2-8-2 L.N.E.R. engine at Vitry; it was as liable, on the test plant, to run hot at 30 m.p.h. as at 60 m.p.h., and at 250 h.p. output as at 2,500 h.p. Yet on the track between Tours and Orleans, developing 2,800 h.p., the bearings were hardly lukewarm. On the test plant the engine vibrated considerably, which may have prevented the maintenance of the oil film. He had applied that lesson on the "Merchant Navy" 4-6-2 locomotives on the Southern Railway, and had also endeavoured to provide continuous lubrication for the inside big-ends. These engines had run 1,000,000 miles without a hot middle big-end.

Mr. E. S. Cox, in reply to Mr. Spear, said he did not think it was generally realised that the resultant maximum load on the axleboxes of the Turbomotive came at such an unfavourable angle. There was a tendency to think that the provision of a turbine meant a beautifully smooth and even loading all round the 360 deg. of a revolution. Mr. Graff-Baker's remarks on the horn-block surfaces gave much food for thought. The day could not be far distant when liners of such material as manganese steel would be tried on ordinary locomotive axleboxes. The excellent experience with overseas engines related by Mr. Williams was most hopeful and encouraging. In reply to Mr. Crane, pressed-in brasses were not used on bronze boxes because the "parent metal" was too soft. For the same reason, fitted bronze strips had to be used instead of pressed-in brasses in the manganese bronze boxes on the L.M.S.R. Both Mr. Crane and Mr. Maass had commented on the absence of grease-lubricated axleboxes from British practice. Much, however, had been written about them; and in India he had compared similar engines running with oil and grease lubrication respectively, and had noticed that although grease lubrication largely eliminated hot boxes, the problem of wear remained very real. The use of roller and Isothermos bearings (in both of which the interior was sealed against grit) in South Africa, he imagined, was due to the large amount of dust encountered there. He agreed with Mr. Ewer's remarks on the effect of brake applications, which were confirmed by Mr. Bulleid's Vitry experiences as to the maintenance of the oil film. Mr. Bulleid also confirmed L.M.S.R. experience that quality of oil was a most important factor.

Straightening Drooped Rail-Ends in the Track

A method for restoring the running surface of worn track by straightening rail-ends and fishplates in situ

A PROBLEM which has confronted the Southern Pacific Railroad of the United States for some years has been the condition of lines laid with 90 lb. per yd. flat-bottom rail. With heavier rail, rail-joint trouble has been corrected by welding and grinding battered rail-ends and reconditioning fishplates, but with the lighter rail, especially in areas in which the track is laid on soft ground, the joints have suffered from drooping; the rails bending in the vertical plane about 25 to 30 in. from the ends, and so cause a sag in the running surface which cannot be corrected by the means just mentioned. Means have therefore been devised to straighten such rails *in situ*, and the method has been applied recently with success to some 60 miles of line. The method is not entirely new, as it has been used on the Missouri-Kansas-Texas and other railways, but there are some novel features in the Southern Pacific procedure, which is carried out with a machine designed by that company for the purpose.

Each machine includes a rigid frame or jacking-beam, consisting of two lengths of 130 lb. rail, placed base to base, one head up and other head down, and fillet-welded together along the edges of the flanges to form a monolithic member. This frame is mounted, at the two ends, on double flanged wheels, 7-ft. apart, and rides with its underside 1¾ in. above the rail at the joint at which the sag is corrected. In the upper part of the machine is the fulcrum beam, 36-in. long, formed from an old locomotive side rod of 3½ in. × 5 in. section. At one end the fulcrum beam is pivoted to the upper end of a fulcrum post, formed of 3-in. dia. steel tubing of double strength; the other, or jacking end, is attached to a 30-ton two-speed hand-operated hydraulic jack, of which the higher speed is used in taking up the slack when adjusting the machine, and the lower speed for applying the actual straightening pressure. The jack rests on a ½-in. steel plate welded on top of the upper rail of the main frame.

For transferring the jacking pressure from the fulcrum beam to the track rails there are two vertical lifting bars, each 4-ft. long and of 5-in. × 1½-in. section, cut from old bridge eye bars and two shorter cross-bars of the same section, which tie the lifting bars together above the fulcrum beam and below the base of the track rails. Each cross-bar is slipped into position through slots in the lifting-bars, and can be easily withdrawn, by means of a handle, when the machine is moved from one joint to the next. All contact surfaces of the lifting bars were hardened, and the fulcrum beam was also heat-treated to increase its stiffness. To hold the machine vertically on the rail, an outrigger arm is provided, which extends to the opposite rail, and carries a roller bearing on the latter.

The carrying wheels of the machine are provided for travelling only, and the weight is taken off them, while straightening is in progress, by the insertion of steel blocks, 2-in. × 2-in. × 3-in. long, between the jacking beam and the rail; the machine is lifted slightly to enable the insertions to be made. It is essential that the fishbolts should be tight before jacking begins; the work of tightening usually precedes the straightening by several days. Before the latter begins, the joints are checked by a 6-ft. straight-edge, and the exact points for bending, at which the reaction blocks will be inserted, are marked. The sleepers immediately under the joint are then slipped out of position sufficiently to allow the insertion of the lower end of the lifting tackle. It has been found that, due to the elasticity of the steel, it is necessary to draw the rail-ends upward roughly three times the amount of their previous droop, to secure a permanent set which will leave the heads level. To prevent excessive upward bending, a stop block, of which the thickness is adjustable according to the lift required, is inserted between the rail-head and the underside of the jacking beam.

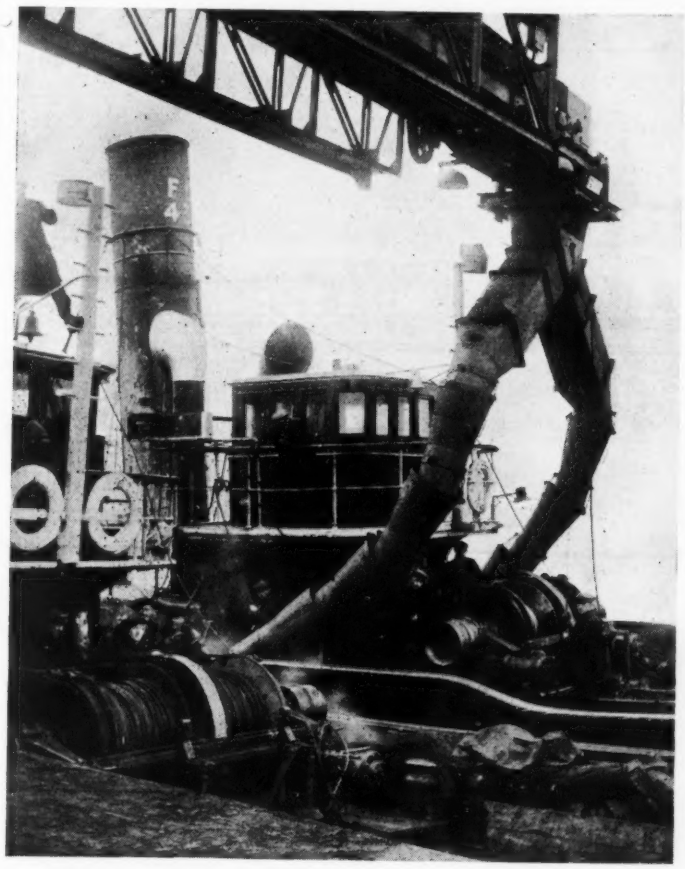
The rails and the fishplates are thus straightened simultaneously, after which the joint sleepers are drawn back into position and tamped up solidly under the rails. Some fishplates have broken during the bending, but it has been shown that in practically every case they were already in a cracked condition, and the breakage has been regarded as an advantageous discovery. As yet no fishplates or rails that have been straightened in this way have broken subsequently in service. The force employed with one machine is 12 men, and their average output to date has been 60 to 80 straightened joints in an 8-hr. day. Any building up of battered rails that may be necessary is done after the straightening, and it is calculated that the preliminary straightening reduces by one-third the amount of weld metal required.

LOAN FOR CHILEAN STATE RAILWAYS.—It is reported that the Chilean State Railways are negotiating a loan of 500 million pesos with the Import-Export Bank of the U.S.A., for the purchase from North America of 1,000 goods vehicles and other materials.

Cargo Coaling Plants—V*

A detailed survey of the principles and installations involved in loading coal on board ship from railway wagons

By J. Dalziel, formerly Assistant Electrical Engineer, L.M.S.R.



Breeches pipe for reaching bunker hatches of trawler

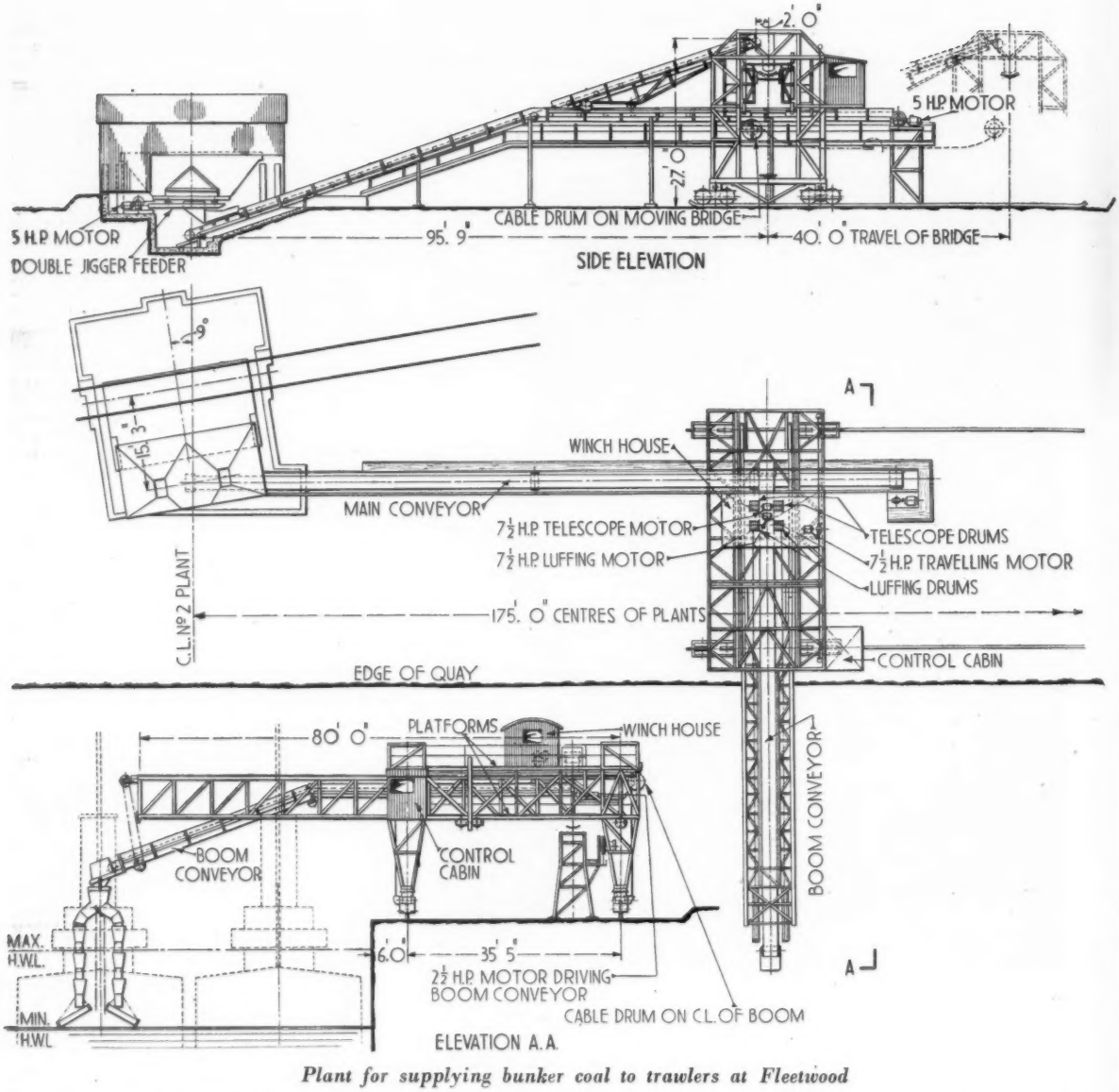
IN plants used solely for bunkering steamers, the question of breakage is unimportant and does not arise; the design of the plants is simplified accordingly. At some harbours, more particularly those serving railway steamers, the method of bunkering was to carry the coal in special wagons fitted with boxes, three or four to a wagon and each carrying 2 tons or 30 cwt. of coal. These boxes had opening bottoms and were lifted by crane from the wagon to a position over the steamer's bunkering hatch, which is generally placed fairly high; the box was then discharged into the hatch by opening the bottom doors. This method of loading and conveyance of coal is also used in Germany to deal with the Ruhr coal which is shipped down the Rhine to Rotterdam in barges made to carry up to 1,000 tons. Both the wagons and the boxes, however, are on a much larger scale; the wagons are of up to 50 tons capacity, carrying up to six or eight boxes, each of which conveys, according to the writer's recollection, 5 to 8 tons. The boxes are handled by elaborate long-reach cranes, with level luffing gear of a special and very elaborate type; these are built to reach out over several barges for unloading into the outermost; discharge takes place, as from bunkering boxes, by opening the bottom doors. This method of loading obviously has the advantages claimed for ordinary crane loading but in even greater measure because the boxes are less cumbrous and can be lowered through hatches where necessary (the Rhine barges have no hatches) much more easily than a wagon can be. No tipping movement is needed and the method of operating the bottom doors requires that the boxes be lowered down to the top of the coal bed for discharge, consequently there is no drop. On the other hand, coal wagons have to be of a special type provided for the one purpose and incapable of loading any other cargo. Such wagons might be difficult and uneconomical to operate under British conditions.

Reverting to bunkering arrangements, the box method has the disadvantage just pointed out of requiring special wagons; these call for special marshalling and transporting arrangements so that the method is not particularly convenient; nor is it quick. At one port that was modernised some years ago, it was superseded by an elevator and conveyor system, in which ordinary wagons were tipped into a hopper as previously described; coal was then drawn from the hopper into an elevator, which delivered it on to a boom carrying a rubber belt and projecting, when in its working position, over the steamer to approximately midships. The boom was triced up clear of the quay face and the ship's superstructure when not in use; when operative it could be slewed to give fore and aft adjustment in accordance with the position of the ship. In conjunction with a rotatable final chute into which the boom delivered these provisions gave easy access to the bunker hatches and allowed for the effect of a considerable rise and fall of the ship in accordance with tidal and loading conditions. The site occasioned some difficulties in the initial layout but they were successfully overcome and it is not necessary to describe them as practically every plant will present problems of its own. They are worth mentioning only because their solution is some testimony to the flexibility of belt-conveying plant generally.

Sometimes steamers are coaled through hatches in the side of the ship by means of floating barges which are equipped with elevators for passing the coal in from the seawards side; the barges themselves are loaded from wagons. Though this arrangement, one would consider, would hardly be economical in view of the two-fold handling required, it is difficult to find a more efficient substitute; the side hatches are difficult of access from any land fixed plant, more especially as they are apt to be masked by the quay on the landward side. On occasion, cross-channel steamers are loaded by crane with a large amount of manual work; in some cases the manual work preponderates. One would have to calculate the financial gain from increased economy and additional speed to determine whether the installation of a conveyor or other type of plant would be justified in these instances. Sometimes the installation would present special difficulties due to local conditions.

In the bunkering of trawlers conveyor plant can again effect economies and increase working speed. These ships are, in general, bunkered through scuttles, which may be round and of smallish diameter; they lie along the deck, four or more on each side of the deck houses, and there is generally one larger scuttle, centrally placed forward. The coal is most frequently dumped on the deck and shovelled through the scuttles by hand. It is fed on to the deck in a variety of ways; the most primitive is by tubs loaded manually from the rail wagons and put aboard by cranes; when the cranes are of an old type the ship has to be swung round to enable the second side to be reached. This can be avoided by making the cranes of sufficient jib radius and designing them to clear the ship's superstructure, but where two trawlers lie alongside each other a jib of sufficient radius to reach the scuttles of the outer boat will be too cumbrous to clear, and handle the work of, the inner ship. This class of work has been dealt with by employing appliances of the transporter type; in the early forms of these the coal still had to be manually-loaded from wagon to tub and discharged from the latter on the ship's deck. In later forms the transporters employ bottom doo-

* Previous parts appeared in our issues of January 7, February 4, March 3, and April 14



Plant for supplying bunker coal to trawlers at Fleetwood

opening boxes instead of tubs, but still discharge on the decks; modern transporter and crane installations, however, are combined with tipper discharge of the coal from the wagons into a hopper with a chute for filling the boxes or tubs. This reduces manual work to some extent, but it is still rather a slow process. In a recent installation using transporters and boxes, the hoppers are fed by conveyor belts much as in the cargo installations already described. Wagon tippers are provided for the discharge of the coal; wagon movements are as previously described and involve the utilisation of 5-ton double rope capstans.

One conveyor installation, for the inception of which the writer was responsible superseded a number of steam cranes and electric transporters; it is believed to be one of the fastest of its type and also the most economical in labour. It was to deal with the four lines of scuttles plus the two central forward ones, of two trawlers lying abreast; the boom was carried in a travelling carriage, having longitudinal motion, and was fitted with a telescopic movement enabling it to plumb either trawler. It delivered the coal through a "breeches," chute, spanning the deck houses, to the scuttles on either side of the ship at will. Most of the coal fell directly through the scuttles so that manual handling was to a large extent obviated. The coal was tipped from the wagon by a side tippler into a hopper as already described; from here it was delivered by a feeder to a rising belt, which in turn delivered on to the boom belt through a throw-off carriage so as to provide for the longitudinal movement above mentioned. The boom had a luffing movement enabling it to be triced up clear of the quay face when out of use; this provided also for rise and fall of the ship as it loaded.

The writer has in this series of articles endeavoured to put on record information as to construction, operation, and results which he considers will be useful to any of those concerned with cargo plants and coal shipment generally. The views expressed are entirely his own, but are based on actual experience as recorded in notes taken by him when work in connection with the different plants passed through his hands. Each of the various main types of plant mentioned probably has its own field of application where it is the best plant for the purposes concerned. From what has been said, however, it will no doubt be clear that in the writer's view the conveyor, being the most modern and most recently evolved type of plant, is most likely to have the widest field of application and generally be the best plant in the majority of applications, having regard to commercial results. This opinion takes into account the high capacity and high loading speeds, the reduction of trimming and increased facility for mechanical stowage, also the convenience and speed of manipulation when reaching awkwardly placed cargo or bunker space and the economy of manpower. The quicker turn round of ships is, of course, a very important additional advantage. The conveyor has been received favourably on the whole in

One of several bunker coaling plants for trawlers at Fleetwood

South Wales but less favourably (for what the writer considers inadequate reasons) in Scotland. Its greatest popularity is on the North-East Coast where the number of conveyors installed by the railway company, by harbour commissioners, and by colliery companies themselves is very considerable and has been growing year by year so that the present total is something over 50. There are conveyors in other districts up and down the country, for example, in the Mersey area and Cumberland. Hoists are found almost everywhere and new ones have been put down in various areas fairly recently. Cranes appear to have had their day except in Scotland.

(*Concluded*)

Straight-Lift Pneumatic Hoists

A USEFUL range of pneumatic cylinder hoists for material handling has recently been developed by the Consolidated Pneumatic Tool Co., Ltd., Fraserburgh, Aberdeenshire. These hoists, simple and positive in operation, consist generally of a cylinder fitted with control valve and an air-operated piston to which a lifting hook or ram head may be attached. Pressure is taken from the compressed air lines, usually installed in modern workshops, by means of flexible hose and enters the cylinder through the control valve which is operated by hand chains.

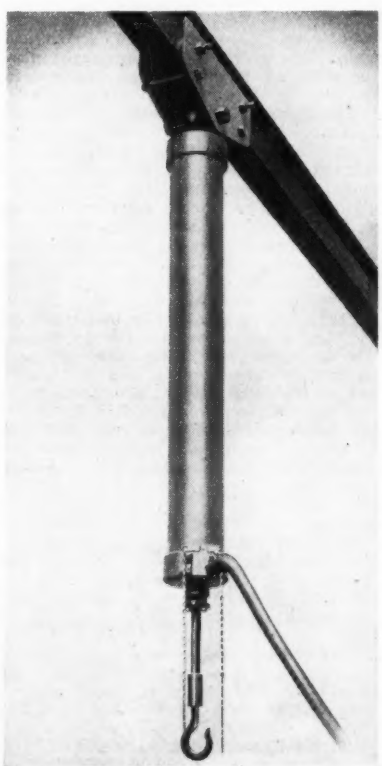
Four types of hoist are available, namely, single acting; double acting; balanced; and automatic trip. In the single acting, or general type, shown in the accompanying illustration, the air, at 80 lb. pressure, is admitted below the piston and the speed of raising the load is governed according to the pull on the control-valve chains. The load is lowered similarly by exhausting the air from the cylinder.

When a load or weight is also to be lowered by pressure the double-acting type is used. In this case the air is admitted to or exhausted from either end of the cylinder; control is effected in a similar manner to that obtaining for the single-acting type.

The balanced type has one side of its piston under constant pressure, whilst the opposite side is subject to a different pressure or to no pressure at all, an arrangement which affords a very easy and creep motion.

For the purpose of raising and lowering loads automatically and continuously, the automatic-trip type has been developed. In this type the trip gear permits the load to be raised and lowered continuously to any predetermined distances within the length of the stroke between the stops provided.

All types of these versatile machines can be arranged to work horizontally or inclined, as well as vertically. They may be used for pulling or pushing loads to or from conveyors, heat-treatment and pickling plants, spraying booths and similar installations, and for manœuvring workpieces into assembly positions.



Consolidated pneumatic straight-lift hoist

Where the range of life is appreciable and headroom is restricted, double-purchase lifts are available. All hoists are made to customers' specific requirements, and can be supplied with lifting capacities of from 2 to 30 cwt., up to 7 ft. stroke, and on robust travelling runners fitted with cast-iron wheels with ball bearings.

THE SALTA-SOCOMPO RAILWAY.—According to a report from Buenos Aires, more than 2,000 labourers, selected for their ability to work in great altitudes, are at present engaged on constructing the roadbed of the Argentine section of the new Trans-Andean Railway, which is to traverse the Socompo Pass. The roadbed is said to have reached the Chilean frontier, but rail laying is about 110 miles behind; further supplies of rails from the U.S.A. are expected in time to continue rail-laying next June.

INSTITUTION OF RAILWAY SIGNAL ENGINEERS.—The Council has decided to hold a series of meetings during the coming Session at which papers will be read and discussed: Wednesday, May 24, "Lubricating oils: their production and use"; Wednesday, June 28, "Coded track circuits"; Friday, July 28, Special luncheon in London, followed by a talk on U.S.A. railways; Wednesday, September 27, "Communications as applied to railway operation." It is expected to have ready by October a paper dealing with precast concrete products used in railway signalling, also concrete sleepers. This paper will be followed at a later date by one of a historical nature. Members will be advised of the dates on which these papers will be read. The above mentioned meetings, with the exception of the luncheon, will be held at the Institution of Electrical Engineers, Savoy Place, Embankment, London, at 6 p.m.

An Unusual Slip in a Rock Cutting

Methods employed by the Chief Engineer's Department of the Great Western Railway

The toe of the slip on the morning of December 10, 1942

SLIPS and subsidences are among the many happenings with which the Engineering Department of a railway has to cope at the shortest notice and an element of surprise sometimes aggravates the situation. By the courtesy of Mr. A. S. Quartermaine, C.B.E., Chief Engineer, Great Western Railway, we are enabled to publish the following account of an occurrence compiled from official correspondence and other records, supplemented by direct information from the company's Divisional Engineer, Plymouth, Mr. E. Lake, and others actually concerned.

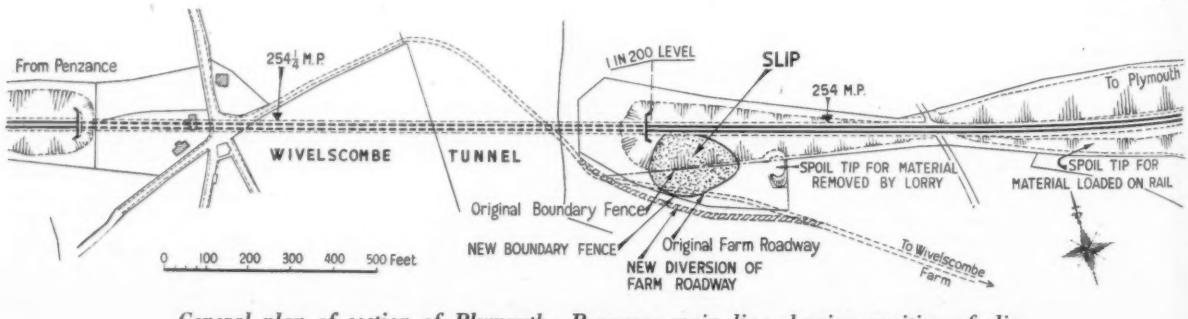
A surprise was sprung on the Great Western Railway Company at Plymouth at about midnight on December 8, 1942, by a telephone call from Mrs. W. Steer, of Wivelscombe Farm, near Saltash, an isolated farmstead reached by a private road over the fields. Driving home by car slowly over the private road at about 11.9 p.m. she felt the road falling away and moving sideways beneath her. She stopped and found that a 20-yard length of the road had sunk some 4 ft., and that many cracks were opening in the ground around her. Mrs. Steer had the commendable presence of mind to realise that the railway, which passed nearby in a deep cutting, might be affected. She therefore went to the nearest telephone, and reported her discovery and fears to the company's exchange at Plymouth. From there the warning was passed at once to the traffic and engineering departments. As a precaution rail traffic in the vicinity was "frozen" as quickly as possible. One goods train was caught near the site, but fortunately not involved in the slip.

The occurrence was located at a lonely spot about half-way through the 5-mile length between Saltash and St. Germans stations, 8 miles from Plymouth by rail and practically inaccessible by road at night as the ferry over the River Tamar is then closed. Nevertheless, a responsible representative of the Engineering Department arrived at the site in a very short time, having commissioned a locomotive for transport. He found in the darkness that a great bulge in the side of the cutting had obstructed the down line. The up line seemed to be unaffected, and as further movement in the slip could not be discerned, the waiting goods train was allowed to pass on that side. With the coming of daylight it was seen that an enormous volume of rock was involved in the movement, and that a complete blockage of the cutting was threatened. The Traffic Department was told that the lines would have to be closed for an indefinite and considerable period, and speedy arrangements were made for a shuttle service by motorbuses for passengers, and certain trains were diverted to the North Cornwall route. The total stoppage to traffic lasted only 2½ days, by which time a single line past the slip was opened. Normal double-line working was resumed some five months later, and in the meantime approximately 12,000 cu. yd. of rock and debris were excavated and removed.

Geological and General Description

The slip took place on the down side of the main line from Plymouth to Penzance, about midway between Saltash and St. Germans Station; the actual mileage was 254 m. 3½ c. to 254 m. 6½ c. The western end of the slip was only a few yards short of the entrance to Wivelscombe tunnel, so that the deepest part of the cutting, with an approximate depth of 80 ft., was affected. The cutting is in rock with steep sides which had been rough trimmed to slopes of about 1 vertical to ¾ horizontal. The rock is slaty in the "Upper Devonian" formation. The beds have been considerably contorted and, at the site of the slip, were standing nearly vertical, leaning slightly towards the railway. The cutting was made in 1905-07 as part of the Saltash to St. Germans deviation line, and no previous trouble of the kind had been experienced.

The position as it was seen on the morning of Wednesday, December 9, was that for a length of about 70 yd., the more or less vertical strata of rock forming the side of the cutting had fallen over towards the line. At the foot of the slope the previously vertical slabs had fallen into a nearly horizontal position and were fouling the down line, and the same sort of movement had taken place all the way up the cutting slope. The face of the cutting had bulged about 12 ft. outside the normal slope, and it looked as though the lower layers were supporting the upper ones. On the ground at the top of the cutting, which previously had had a gentle slope towards the railway, settlement had taken place over a D-shaped area, with the back of the D about 60 yd. long at the fence at the top of the cutting; the curve of the D was marked, inland, by a sudden drop from the old level. The disturbance extended back about 60 ft. from the original top of the cutting, and the settlement was about 4 ft. deep. In this D-shaped area there were many open cracks and crevices, and the boundary fence at the top of the cutting, in addition to sinking some 4 ft., had moved about 20 ft. towards the railway. Only a



General plan of section of Plymouth—Penzance main line showing position of slip

comparatively small amount of material had actually fallen at the foot of the cutting, but the depth of the movement was unknown, and the position looked unstable.

Remedial Measures

The problems which presented themselves for solution were, first, the restoration of traffic under safe conditions in the shortest possible time, and after that, the stabilisation of the slip, followed by any drainage or other works which might seem necessary to prevent an extension or recurrence of the trouble. The up line was not actually affected, but the side of the cutting which had slipped appeared to be so unstable as to threaten to overwhelm both lines at any time. The first decision, therefore, was to attempt to induce a more stable condition by shaking or removing the toe of the slip by explosives or other means.

As large quantities of material had to be moved, men and wagons were mobilised as quickly as possible. Among the company's men brought to the site was the "Cliff Gang," which is normally engaged on maintenance work on the coastal section between Dawlish and Teignmouth. These men, and others drawn from distant parts of the Division, were housed in sleeping and messing rail coaches stabled conveniently near the work. In addition, a local quarrying firm—Betty & Tom Limited—provided men, plant, and explosives, coupled with invaluable local experience, for the initial blasting operation.

Blasting was decided on, and 12 holes were sunk into the rock at the toe of the slip and charged with a total of about 220 lb. of ammonal. These charges were fired simultaneously by an electric exploder on the afternoon of Thursday, December 10. The explosion shook the lower layers of rock, but had no effect higher up the slope. An examination afterwards led to the conclusion that the position was more stable than it had first appeared to be and that further serious movement would not take place without reasonable warning. As a result it was possible to make useful dispositions as to the resumption of railway traffic.

The top excavation was put in the hands of Betty & Tom Limited, as a contract for payment on a "time and materials" basis. This firm used a No. 10 Ruston-Bucyrus excavator with a ¾ cu. yd. bucket of the face-shovel type, mounted on caterpillar tracks, and four 5-ton motor tip-lorries. The excavator commenced work on December 18 at the east end of the outer edge of the slip, and worked through towards the west at an average depth of about 7 ft. It continued working to and fro at this depth until the surface had been cleared to the edge of the cutting. A second layer was then similarly removed, and afterwards two more layers until a total depth of 20 ft. below the original ground level had been excavated in the four benchings. This work occupied two months, and approximately 9,000 cu. yd. of material were removed. Of this material 8,000 cu. yd. were transported and dumped in the two nearby disused quarries and the other 1,000 cu. yd. were shot down the face of the cutting and loaded on rail. This material was all of a loose shaly sort and was easily dug by the machine.

In preparation for the removal of the face of the cutting the up and down lines were first slewed away from the slip by about 2 ft., which was as much as the clearance on the opposite side of the cutting would permit. This temporary slew minimised the disturbance necessary at the toe for the building of a timber loading platform throughout the length of the slip. The platform was arranged to overhang the side of the rail tip-wagons standing on the down line, and the surface was given a good cross-fall to facilitate the run of the debris. By January 25, when the loading platform was completed, the excavation on top had reached such a stage that it was considered safe to proceed with the removal of the edges of rock on the slope of the cutting. This was done by men supported by ropes and using air drills. At the same time a gully, 7 ft. wide, was cut into the middle of the slip. It penetrated 40 ft. on the level without reaching the slip plane, and although the decision was taken to continue further with a heading for exploratory and drainage purposes, the conclusion was reached that the cutting slope would be safe if trimmed back to a batter of one vertical to one horizontal. The face excavation proper was accordingly put in hand as soon as the top excavation had been completed. Gullies, 7 ft. wide and 30 ft. apart, were first cut to the required batter to serve as profiles and the remaining face between profiles was then removed, using the gullies as chutes to carry the debris to the loading platform at the bottom. About 50 men were engaged, using four air compressors and eight jack hammers. Special bars of 1-in. steel about 4 ft. long with chisel and pinch ends were provided to split the shillet slabs. Blasting was necessary to displace the more compact blocks, and a powder specially suited to this particular rock was used. The charges were fired by slow burning fuses and the times of blasting had to be fitted into suitable intervals between the passing of trains through the cutting. As a precaution an electric train token for the single-line section past the slip was withdrawn at these periods, and held by the foreman until the completion of the blasting and subsequent inspection. All debris from the face of the cutting was loaded into wagons on the down line, and these were then shunted a short distance out of the cutting and unloaded down a steep embankment. For economy in labour a set of eight side-tip wagons were used, each capable of holding 15 cu. yd., and the down line alongside the spoil tip was slewed outwards from time to time to avoid double handling of the material as it was being deposited. In all some 3,000 cu. yd. were disposed of in this way and the operation was completed by May 5, 1943, when the down line was reopened to normal traffic.

Effect on Traffic Working

On the night when the slip occurred the last train to pass through the cutting on the down line was a goods train at about 10.20 p.m.; a train of empty stock passed on the up line at about 11.48 p.m. Single-line working on the up line was permitted at 5 m.p.h. from 3.35 a.m. till 10.15 a.m. on December 9, during which period two goods trains and one passenger train passed through. The line was then completely closed until the effect of the blasting on December 10 showed that the up line was not in immediate danger. Single-line working was introduced on December 10 for goods trains at night from 5 p.m. to 8 a.m. Speed was restricted to 5 m.p.h. and at this stage daytime use could not be made of the up line because it was required by the Engineering Department for clearance purposes. As the slip was in the middle of a four-mile section, single-line working was necessary throughout this length and the delays were considerable. To overcome this difficulty, arrangements were made to introduce a short single-line section past the slip as quickly as possible by cutting in facing cross-over connections and providing signal boxes with electric train token instruments at each end. The necessary details having been settled on December 10, it is noteworthy that the cross-over connections and signal boxes, with all the necessary signalling, etc., were installed in five days and were completed by 2.45 p.m. on December 18, when they were brought into operation. Permanent way fittings already on hand for other sites were made use of, and the signalling, etc., was built up from stock articles.

In the meantime some of the more important passenger and goods trains had been allowed to pass through in daytime, but from December 18 traffic requirements were fully met, subject only to the short delay over the ½ mile section of single line with a speed restriction of 5 m.p.h. By this time the down line past the slip was clear and in use as a siding for the loading of debris; the exits from it at each end were protected by catchpoints controlled from the signal boxes.

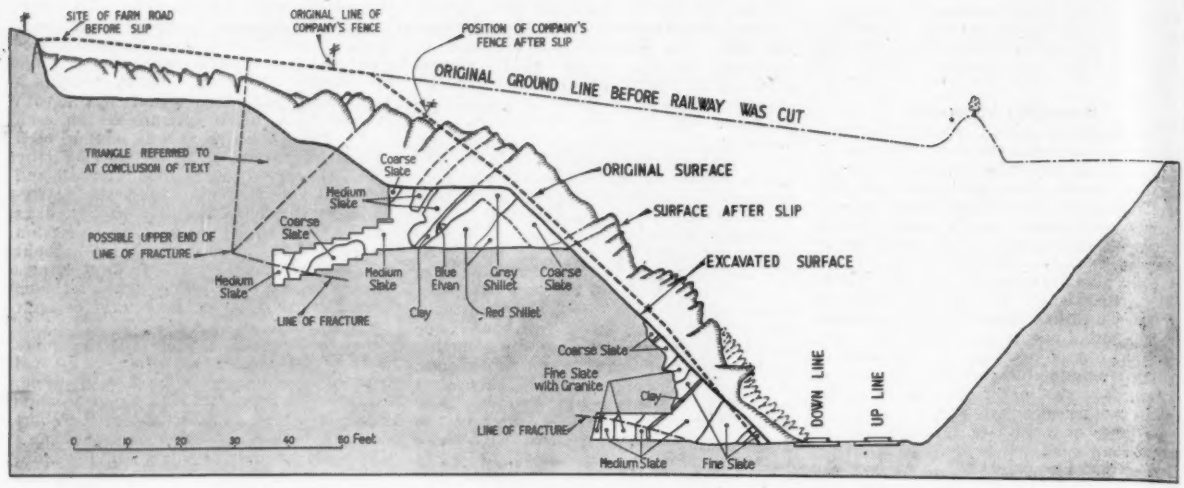
Single-line working continued during the 4½ months required for the excavations and on Sunday, May 2, double-line working was restored with a speed restriction of 5 m.p.h. on both lines. A fortnight later the speed restriction was withdrawn from the up line, but it had to be maintained on the down line for some months more on account of the exploratory work in progress alongside. The cross-over connections and the temporary signal boxes were kept in position, but out of use, throughout the next winter, in case further movement in the slip should make another period of single-line working necessary.

Arrangements for Watching

One of the first things done after the discovery of the slip was the installation of a field telephone at the site, for communication with the nearest signal boxes and the company's telephone system generally. After the exploratory gully had been cut into the middle of the slip a cement plaster band, about 6 in. deep, was put on the rock along one side of it. Any movement, however slight, would have shown itself at once by cracks in this plaster. Apart from the suspicion of a movement on December 11, the day after the blasting of the toe, no further movement was discerned.

Exploratory and Drainage Work

Concurrent with the general excavation, a gully 7 ft. wide had been opened in the face of the cutting at the middle of the slip and it was hoped that it would expose the seat of the movement. At a distance of 40 ft. in from the face, however, the gully was still in disturbed rock and it was now too deep to be economically extended further. To locate the base of the movement and to provide an outlet for any water that might still be held back, a heading about 4 ft. wide by 5 ft. high was commenced at the end of the gully, working in a downward direction of 1 in 3 through hard slate saturated with moisture. At a penetration of 18 ft. it became evident that the heading was approaching the solid rock, and at 24 ft. the end presented an undisturbed surface, while above and in the sides of the heading, the line of fracture was definitely visible, with water constantly dripping from it. Steps were taken to prevent the entry of rainwater from the open gully outside, so that the whole accumulation of water in the bottom of the heading



Cross section showing the folding over of the vertical strata and the fracture

came from the seepage on the line of fracture. It was found that in wet weather the sump filled fairly rapidly to a depth of 2 ft. 3 in., which was never exceeded. At this level the rate of seepage away through crevices in the disturbed rock was equal to the inflow. In the meantime a second gully into the face of the cutting had been commenced at rail level, with a view to discovering the base of the movement lower down, and investigating the desirability or otherwise of building a toe wall. This gully, with a short heading at the end of it, disclosed the line of fracture at a distance of 35 ft. from the outer rail of the down line at a height of 4 ft. above it.

Line of Fracture

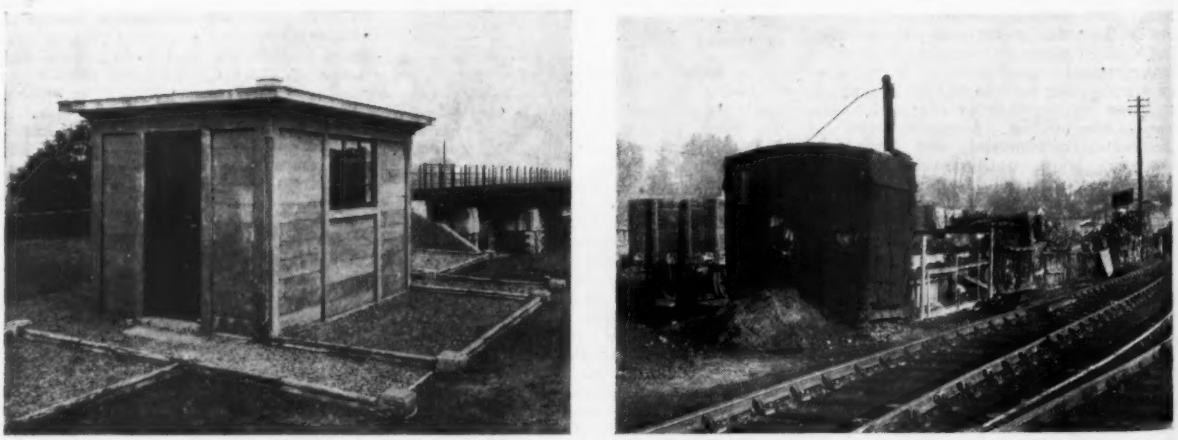
The line of fracture, as discovered in the two headings, does not appear to follow a definite curve, but it would seem that the end of the upper heading might be nearly at the limit of the turning movement. If this is so, the settlement of the roadway and the sloping ground at the top of the cutting could be accounted for by the void which would be caused by the falling over of the vertical strata as indicated by the triangle on the drawing of cross section at middle of slip.

BRIDEWELL MUSEUM, NORWICH.—In the *L.N.E.R. Magazine*, Mr. C. H. Hewison, of Lowestoft, has directed attention to the small collection of railway exhibits in the transport section of the Bridewell Museum, Norwich. He says that the chief feature is a fine model of the G.E.R. Engine No. 1900, about 6 ft. long, lent to the museum by the L.N.E.R. There is a smaller model of an early 2-4-0 type engine, with outside cylinders, called *Gliding Star*. Then there is a painted coat-of-arms of the Eastern Union Railway, and a copy of the bye-laws of the Norfolk Railway, painted on a slab of slate. The earliest piece of permanent way in the museum is a rail from the Peak Forest Tramway of 1794, and a rail and some chairs dated 1825, presumably from the Stockton & Darlington Railway.

In a glass case there are two very early rule books and two early G.E.R. guides. There are timetables of the Northern & Eastern Railway, 1843; the Eastern Union Railway, 1848; and the Eastern Counties Railway, 1854. *The Illustrated London News* of August 2, 1845, is open at the page describing the opening of the line from London to Norwich, and there are illustrations of the stations at Brandon, Thetford, and Norwich as they were at that time.

The museum contains no other railway material, but the transport section also includes tramways, motorcars, ships, and aircraft.

Lineside Tidiness on the L.N.E.R.



A strong contrast in lineside tidiness is given in the above illustrations, which show, left, a modern concrete platelayer's hut in well-kept surroundings, and, right, an old and patched hut on an unkempt stretch of line

An Unusual Slip in a Rock Cutting

(See article, pages 498-500)

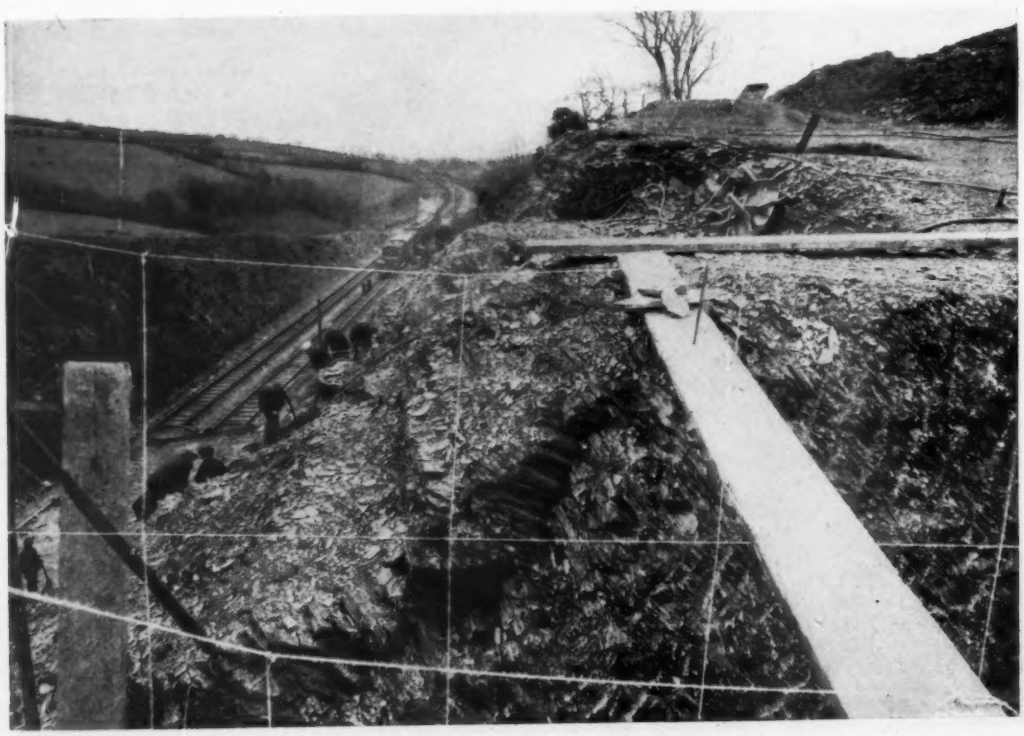
December 10, 1942. *Cracks in the field at the top of the slip, outside the company's boundary*

December 10, 1942. *General view of the slip from above the tunnel entrance*

An Unusual Slip in a Rock Cutting

(*See article, pages* 498-500)

February 17, 1943. *Dressing back of cutting face in progress. Note loading platform and side-tip wagons*



March 29, 1943. *The stratification of the rock as seen in the exploratory gully*

RAILWAY NEWS SECTION

PERSONAL

Colonel Eric Gore-Browne, recently elected Chairman of the Southern Railway Company, has relinquished his position as Rubber Controller, Ministry of Supply. He has been succeeded by Sir Vyvyan Board, Senior Economy Officer of the Ministry, who will continue to be the Ministry's adviser on economy matters.

Mr. R. F. Morkill, M.C., who, as recorded in our May 5 issue, has been elected President of the Institution of Railway Signal Engineers, is at present on the staff of the Ministry of War Transport as Technical Assistant (Railway Maintenance Division). He was born in Canada and trained as an electrical engineer. He received his first railway experience with the St. Johns, Newfoundland, Electric Light, Power & Tramway Company. He served in the South African War and later had charge of signalling on the Central South African lines for a short period, the equipment of which was of a distinctive type. He went to New York, U.S.A., in 1910 and joined the Union Switch & Signal Company; he was associated with the signalling of the New York terminal of the Pennsylvania Railroad. Later he went to the General Railway Signal Company of Canada, which he left to become Signal & Electrical Engineer of the Grand Trunk Railway. He joined the Canadian Engineers in the war of 1914-18 and saw service in France, Belgium and Germany. After being transferred to the Royal Engineers, he formed and commanded the 200th Railway Signal & Interlocking Company, the first unit of its kind. He was awarded the Military Cross and was mentioned in dispatches; and when demobilised held the rank of Major. He joined Tyer & Co. Ltd. at its French works, and later became Manager at its Carlisle works. In 1925 he was appointed Superintendent of Signals & Telegraphs, Metropolitan Railway. When the London Passenger Transport Board was formed he became Assistant Signal Engineer (Maintenance), and was made an officer of the Board in 1936. In 1940 he was made Joint Signal Engineer, with Mr. R. Dell, in succession to the late Mr. W. S. Every. Mr. Morkill was seconded to the Railway (M) Division of the Ministry of War Transport in October, 1941, and retired from the L.P.T.B. on December 31 of that year. He was elected a Member of the Institution of Railway Signal Engineers in 1925, a Member of Council in 1928, and Vice-President in 1941. He has taken a very active part in its committee work, meetings and discussions. He is a Fellow of the Permanent Way Institution and has been a member for many years of what is now the Signal Section of the Association of American Railroads.

Mr. R. F. Morkill

Elected President of the Institution of Railway Signal Engineers

Mr. F. S. Barnes

Chief Carriage & Wagon Outdoor Assistant, Derby, L.M.S.R., 1931-44

Mr. J. T. Cox

Appointed Chief Carriage & Wagon Outdoor Assistant, Derby, L.M.S.R.

Mr. F. S. Barnes, who, as recorded in our April 14 issue, is retiring from the position of Chief Carriage & Wagon Outdoor Assistant, Chief Mechanical & Electrical Engineer's Department, Derby, H.Q., L.M.S.R., commenced his railway career on the former Lancashire & Yorkshire Railway. After serving for some years as Junior Assistant in the Locomotive Running Department at Horwich, he was appointed, in 1905, Outdoor Assistant, Carriage & Wagon Department. At the amalgamation of the railways in 1923 he was appointed Divisional Outdoor Assistant for the Manchester Area, which included all the company's carriage and wagon depots in Manchester, Leeds, and northward to Carlisle inclusive. In 1928 Mr. Barnes became Divisional Outdoor Assistant, London, Carriage & Wagon Department, and in 1931 has was appointed Chief Outdoor Assistant, Derby, in that department.

The Secretary of State for India has expressed his high appreciation of the material contributions made towards the success of the war operations based on India by Mr. R. J. M. Inglis, Divisional General Manager, Scottish Area, L.N.E.R., and Colonel J. A. Appleton, U.S.A. Army (formerly General Manager, New York Zone, Pennsylvania Railroad), who recently visited India to advise informally the Railway Administration on a variety of wartime problems. The return of Mr. Inglis to Great Britain was recorded in our March 31 issue.

Mr. T. F. Cameron, who has been acting as Divisional General Manager, Scottish Area, during the absence of Mr. Inglis, has returned to headquarters, to resume his position of Assistant General Manager (Works & General).

Mr. J. T. Cox, Assistant Works Superintendent, Carriage & Wagon Department, Wolverton, L.M.S.R., who, as recorded in our April 14 issue, has been appointed Chief Carriage & Wagon Outdoor Assistant, Chief Mechanical & Electrical Engineer's Department, Derby, H.Q., commenced his railway career in the workshops of the L.N.W.R. Carriage Works at Wolverton in 1906. In 1911 he was transferred to the drawing office, and in 1914 he was appointed Outdoor Carriage Inspector, Wolverton. He received technical training at the Wolverton Technical College, and, while in the workshops, among other distinctions obtained first class honours in the City & Guilds examination in Carriage & Wagon Building and the silver medal awarded by the Worshipful Company of Merchant Taylors. At the outbreak of war in 1914 he joined the Buckinghamshire Battalion of the O.B.L.I. (T.A.), with which he served until 1917, when he was transferred to the headquarters of the 8th and 13th Corps; later he went to the headquarters of the Fifth Army staff. He saw active service in France from March, 1915, to the end of the war. On returning to railway service in 1919 he was appointed to Crewe as Outdoor Inspector; and in 1922 he was made District Outdoor Inspector at Manchester. In 1926 he became Headquarters Inspector, Carriage & Wagon Department, Derby, which position he held until 1931, when he was appointed Divisional Carriage & Wagon Outdoor Assistant, Manchester. Mr. Cox became Assistant Works Superintendent, Carriage & Wagon Department, Wolverton, in May, 1942.

XUM

We regret to record the death on May 3, at the age of 69, of Sir Clement Hindley, K.C.I.E., M.Inst.C.E., M.Inst.T., M.I.E. (India), V.D., formerly Agent, East Indian Railway, afterwards the first Chief Commissioner of Railways in India, and President of the Institution of Civil Engineers for 1939-40.

Mr. James P. Johnson, Chief of Transportation, Canadian National Railways, who, as recorded in our April 7 issue, has been appointed Vice-President & General Manager, Atlantic Region, was born at Castlebar, Quebec, and obtained a bilingual education at Danville Academy. He commenced his railway career as a telegrapher with the former

Mr. J. P. Johnson

Appointed Vice-President & General Manager, Atlantic Region, C.N.R.

Grand Trunk Railway in 1905, and in 1908 became a dispatcher. In 1915 he was appointed Chief Train Dispatcher & Trainmaster for the National Transcontinental Railway at Grant, Ontario. Mr. Johnson became Inspector of Transportation at Winnipeg in 1919, and afterwards served in superintending positions at Melfort, Prince Albert, Saskatoon, Dauphin and Calgary until December, 1936, when he was appointed General Superintendent, Northern Ontario District, with headquarters at North Bay. In September, 1941, he was transferred to Toronto as General Superintendent, Southern Ontario District. In January, 1942, Mr. Johnson was promoted to the position of Chief of Transportation for the system.

We regret to record the death, in his 89th year, of Mr. J. W. Lattig, who at one time was General Manager of the National Switch & Signal Company, U.S.A. (a firm no longer in existence). Mr. Lattig is best remembered for his primary battery electric signal machine, which he first applied to a semaphore signal on the Central Railroad of New Jersey in 1893, often incorrectly described in America as the first electric semaphore signal (electrically-worked semaphores, although not employing motor mechanisms, were in use in England and other countries ten years earlier). It is probable that Mr. Lattig's apparatus was the first really practicable motor signal machine used in regular service in the United States. While Telegraph Superintendent of the Lehigh Valley Railroad, Mr. Lattig installed in 1886 the Edison and Phelps inductive system of telegraphing to and from trains in motion, to which reference is made on page 486.

ARGENTINE STATE RAILWAYS

The Argentine Minister of Public Works has accepted the resignations of Señor Eduardo Huergo, General Manager (Administrator-General) of the State Railways, and of the other members of the administrative council of the State Railways (Señores C. A. Ochoa, Sub-Administrator-General & Chief of the Technical Operation Department; Luis Sanmarco, Chief Accountant; Pedro Mendiondo, Chief Engineer; and A. G. Urcelay, Traffic & Commercial Manager). A portrait and biography of Señor Huergo, in connection with his appointment as General Manager, appeared in our May 7, 1943, issue.

Lt.-Colonel Alfredo José Intzaurgarat has been appointed General Manager.

(*See pages* 485 *and* 492).

MEMORIAL SERVICE FOR LT.-COLONEL J. R. SADLER

A memorial service for Lt.-Colonel J. R. Sadler, General Manager & Deputy-Chairman, Bombay Port Trust (formerly District Passenger Manager, York, L.N.E.R.), was held at St. Michael's Church, Spurriergate, York, on May 3. Among those who attended, in addition to family mourners, were the following officers of the L.N.E.R.:

Messrs. E. A. W. Dickson, Assistant Secretary of the company (representing Sir Murrough Wilson, Deputy-Chairman, and Chairman of the North Eastern Area Local Board); W. H. Johnson, Secretary of the company; S. T. Burgoyne, Passenger Manager (also representing Mr. C. M. Jenkin Jones, Divisional General Manager), P. Gibb, Goods Manager, E. M. Rutter, Superintendent, H. S. Cole, Chief of Police (N.E. & Scottish Areas), H. Arnott, Assistant Superintendent, D. Murray, Assistant Goods & Passenger Manager, C. Cooper, Staff Assistant to Superintendent, and R. W. Rose (representing Mr. C. M. Stedman, Locomotive Running Superintendent), North Eastern Area; H. R. Garth, Assistant to Engineer (Construction), York (representing Mr. J. Taylor Thompson, Engineer, York); J. J. Lovatt, Divisional Locomotive Superintendent, York; J. E. M. Roberts, District Superintendent, Darlington; E. S. Bradley, District Engineer, York; J. E. Richardson, District Passenger Manager, York (also representing Mr. L. Sproat, District Superintendent, Newcastle); G. Peacock (representing Leeds District Passenger Manager and staff); H. Sumner (representing Mr. A. S. Buswell, District Passenger Manager, Newcastle); D. A. Lamb (representing Mr. H. F. Pallant, District Superintendent, York); C. Reynolds (representing Mr. L. Ballan, District Superintendent, Hull); S. W. M. Hind, North Eastern Representative, Press Relations Office, York; and H. Wood, Manager, Royal Station Hotel, York. There was also a large number of representatives of staffs of the head and district offices and departments in York, as well as many other serving and retired members of the L.N.E.R. staff, and former comrades in the N.E. Battalion, Northumberland Fusiliers.

Mr. K. A. Kindon, Assistant District Goods & Passenger Manager, Nottingham, L.N.E.R., has been appointed Acting Assistant to the Passenger Manager, Southern Area.

We regret to record the death on April 29, at the age of 89, of Mr. Thomas Henry Ellis, formerly District Superintendent, York, North Eastern Railway. He entered the company's service in 1869. In 1888 he was appointed to the District Superintendent's Office, Newcastle, and in 1895 became District Superintendent, Darlington. He transferred to a similar post at York (North) in 1902; and on the reorganisation of the districts in 1904 he remained in charge of the new York District, which post he occupied until his retirement on December 31, 1922.

Mr. William Roberts Devenish, who, as recorded in our April 7 issue, has been appointed Vice-President, Western Region, Canadian National Railways, has hitherto been Vice-President & General Manager for the territory from the head of the Great Lakes to the Pacific coast. He was born at Cahir, Ireland, and was educated at St. Columba's College and Trinity

Mr. W. R. Devenish

Appointed Vice-President, Western Region, C.N.R.

College, Dublin. Mr. Devenish is a civil engineer by profession; he has been in Canada for forty years, during which time he has acquired extensive railway experience. His first service was in western Canada, after which he joined the engineering staff engaged on the construction of the former National Transcontinental Railway. In 1913 he transferred to the Intercolonial Railway, and was, first, Division Engineer at Moncton, and, subsequently, Superintendent at Campbellton and Moncton. In 1920 he became General Superintendent for the Canadian National Railways at Toronto, and later served at North Bay, Edmonton and Winnipeg. He was promoted to the position of General Superintendent of Transportation for the Western Region in 1936, and three years later was appointed General Manager of that region. He was promoted Vice-President & General Manager in June, 1942, with jurisdiction over C.N.R. railway activities from the Great Lakes to, and including, the Pacific coast.

We regret to record the death, at the age of 82, of Colonel Shafto Longfield Cra'ster, C.B., C.I.E., late Royal Engineers, who retired from the position of Agent, North Western Railway (India), in 1917. Previously he had been Chief Engineer of that railway. After leaving the N.W.R. he was appointed Chief Mechanical Engineer, War Office. He retired from the Army in 1919.

TRANSPORT SERVICES AND THE WAR—241

Closing of Plaidy Station, L.N.E.R.

It is officially announced that Plaidy Station on the Inverarnsay-Macduff section of the L.N.E.R. will be closed for passengers and freight traffic on and from Monday, May 22. This coincides, of course, with the introduction of the summer timetables (see poster announcement, page 506).

London Transport Posters

The series of six portraits of public service employees has been completed recently with the appearance at London Passenger Transport Board stations of a further two posters, which depict a woman porter and a N.F.S. mobile driver; the earlier posters, showing a policeman, a bus driver, a railway motorman, and a bus conductress, were described and illustrated in our April 21 issue. The posters were drawn by Mr. Eric Kennington and contain verses by Mr. A. P. Herbert, which are reproduced below.

The last two of the series of six new London Transport posters; the previous four were reproduced in our April 21 issue (page 420)

The woman porter, Miss Elsie Birrell of Stockwell Station, has been employed by London Transport for 3½ years, and was one of the first women to volunteer for service as a porter.

Thank you, Mrs. Porter,
For a good job stoutly done;
Your voice is clear, and the Hun can hear
When you cry "South Kensington!"

The world must hurry homeward,
The soldier on his way,
And the wheels whizz round on the Underground
At the voice of the girls in grey.

And though the skies are noisy
How calm the voices are—
"Upminster train! That man again!
Pass further down the car!"

The N.F.S. mobile driver is Miss Desirée Ellinger; during the blitz on London she frequently drove her van in the Dock area, bringing much-needed refreshments to the firemen.

Thank you, fire fighters, harnessing your hoses,
Busy at your pumps, or patiently at play.
Once upon a time we used to throw you roses:
You don't see quite such a cloud of them today.

Some of us remember the blitz and the burning,
The black-faced force in the red and the blue,
St. Paul's in peril and the Hun returning,
The tanks all dry and the night half through.

When they sound the sirens, some of us are sleeping,
Some of us turn over, some of us complain,
But you are on the job still, we are in your keeping,
And one fine night we'll be glad of you again.

Road Transport of Goods

From May 22 nearly all long-distance movements of general traffic by road will be arranged through the Government Road Haulage Organisation. Movements of general traffic for 60 road miles or over, otherwise than by the Road Haulage Organisation, will be limited by the Road Transport of Goods Order, 1944, made by the Ministry of War Transport under the new Defence Regulation 73B of February 25 last, to which we made reference in our March 17 issue, page 285.

Parcels and smalls, abnormal indivisible loads, and household furniture and effects, all of which are defined for the purposes of the Order, are exempt from its operation. Nor does the Order apply to tank vehicles. Certain exemptions may also be given by the Regional Transport Commissioners by means of permits covering an individual consignment, or class of consignments, or, in the case of individual consignments, by officers of the Road Haulage Organisation. Any operator desiring a permit for a class of consignments should apply to the appropriate District Transport Officer. Permits will not be granted for general traffic in the absence of special circumstances, as this would defeat the objects of the Order. Applications for permits will, however, be considered in the following cases:—

(i) "smalls" which comply with the definition in the Order in all respects except in the method of handling;

(ii) consignments between 1 and 2½ tons regularly collected by "smalls" carriers from consignors of "smalls" where no economy would result from the transfer of the consignments to the Road Haulage Organisation;

(iii) ordinary haulage vehicles when carrying loading tackle for, and small parts of, abnormal indivisible loads themselves excepted under the Order;

(iv) "A" and "B" vehicles used for 60 or more road miles operated under contracts of hire to a Government Department, other than the Ministry of War Transport; applications must be endorsed by a representative of the Department concerned.

In considering applications for "smalls" traffic which does not comply with the definition in the Order, Regional Transport Commissioners will be able to consult appointed representatives of the National Conference of Express Carriers. Such applications will not normally be granted unless the applicant was genuinely engaged in carrying "parcels and smalls" traffic before November 2, 1942, when the Road Haulage Organisation was announced.

In the case of "C" operators, permits will normally be limited to the carriage of their own goods only, and, as a condition of the permit, such operators may be required to place the vehicle at the disposal of the Road Haulage Organisation for loading on return journeys.

All applicants for permits, whether "A,"

PASSENGER SERVICES

THE OFFICIAL TIME TABLES
dated Oct. 4th, 1943, to April 30th, 1944,
WILL REMAIN IN OPERATION
until May 21st, 1944.

REVISED TIME TABLES
dated May 22nd, 1944, will be issued
and will operate until further notice.

RAILWAY EXECUTIVE COMMITTEE

The R.E.C. poster announcement of the summer timetable

"B," or "C" operators, must show that their loads cannot be conveyed reasonably by another form of transport, and that no saving in fuel or rubber would be obtained if the loads were conveyed by the Road Haulage Organisation.

Exemptions given by officers of the Road Haulage Organisation will be in the form of a consignment note (RH/M/2C). This will automatically cover all traffic accepted by the Organisation, whether carried by vehicles included in the Organisation or casually employed.

Railway Cuts in Eire

On April 24, the first day of the curtailed train services in Eire, there were far fewer persons travelling on the Great Southern Railways system than normally. The following table shows the capacity and the loading of the principal trains from Dublin:

Service	Capacity	Loading
Wexford	415	112
Sligo	452	254
Galway	539	226
Limerick	475	150

Accommodation of main-line trains is strictly limited, and advance bookings may be made within seven days of the date of journey by passengers travelling from Dublin, Cork, Limerick, Waterford, Tralee, Galway, Sligo, Ballina, Westport, and Athlone. Tickets at other points are issued on Mondays and Thursdays (the only days on which main-line passenger services now operate) if accommodation is available. The issue of platform tickets has been discontinued.

Goods traffic is accepted only on those days when goods trains operate, namely, Mondays, Tuesdays, Thursdays, and Fridays. All sundry goods traffic for the south is now handled at Kingsbridge goods depot, and only wagon load traffic for southern line stations is dealt with at North Wall.

Dublin Area Transport

The Electricity Supply Board in Eire has made a series of restrictions concerning the use of electricity. Restriction No. 3 states that the use of electricity for traction is not to exceed 66⅔ per cent. of the consumption for this purpose by the consumer in the corresponding period of 1943.

On May 1 minimum fare zone arrangements were introduced on the longer-distance outgoing buses of the Dublin United Transport Co. Ltd., in accordance with the Emergency Powers (No. 307) Order, 1944. The effect is that, if a passenger is required to pay a minimum fare, he is not permitted to alight until the bus has gone at least as far as that fare entitles him to travel. Only in an emergency may a passenger alight within the minimum fare zone. Passengers may board at any stopping place within the zone. Minimum fares are applicable only on outward trips.

Substantial curtailments in the Hill of Howth tram services of the Great Northern Railway became effective on May 3.

Irish Channel Shipping

The drastic reductions in the passenger shipping services between Great Britain and Ireland which became effective on April 24, and to which reference was made in our April 28 issue (page 449), have left the Larne-Stranraer route as the only outlet for Northern Ireland, passenger traffic between Belfast and Heysham having been suspended.

Russian Railway Repair

According to an announcement in the *Red Star*, Soviet railwaymen have restored nearly 20,000 miles of line since Russia became involved in the war, and have built more than 5,000 bridges.

Rates for Transfer of German Industry

To assist in the transfer of industrial establishments from those areas most exposed to air attack, the German Reichsbahn has introduced an emergency rate for such of these consignments as are transferred under official request. The special rate became operative on November 1, 1943, and may be applied to consignments between any stations in Germany.

Sleeper Production in Slovakia

Endeavours are being made in Slovakia to increase railway sleeper production so as to expand the country's exports to Germany and other countries, such as Switzerland. Heretofore, the Slovak production of railway sleepers has absorbed an average of 4,238,000 cu. ft. of beech wood and 1,059,510 cu. ft. of oak per annum; this is but a fraction of the country's annual production of leaf wood, which has shown an annual average of 88,292,500 cu. ft. in recent years.

Mobile German Booking Offices

Mobile railway booking offices in motor vehicles are now used in Germany in areas where station buildings have been destroyed or heavily damaged through air attacks. Recent reports state that the Reichsbahndirektion Essen has a number of such booking offices in operation. They are, in the main, reconstructed buses, in which three persons can be attended to at a time. Their equipment is said to be complete so far as normal tickets, season tickets, and other forms of travel documents are concerned. It has been announced that these travelling booking offices should render excellent service in post-war years at fairs and other large-scale public gatherings.

Important New Roumanian Railway

The new standard-gauge railway between Bucharest and Faurei (on the Buzau—Galatz main line), 86 miles long, the building of which was taken in hand in May, 1941, has been completed, and it was opened to traffic recently, according to a message dated March 29 from a neutral source. At Urziceni, some 34 miles to the north-east of the capital, it crosses the Ploeshti—Slobozia railway. The new line shortens the distance between Bucharest and Galatz, Roumania's main combined Danube and maritime port, to 143 miles, compared with the previous route of 162 miles *via* Ploeshti. It is not known whether the new Bucharest—Faurei line is doubled track, but the original scheme envisaged this. In connection with the opening of the new line, stress has been laid on the fact that the line capacity of the Roumanian State Railways has been increased by about 30 per cent. in recent years, mainly as a result of double tracking.

The Eritrea Railway

Under British military control, the Eritrea Railway is now being worked between Massaua and Agordat, a distance of 191 miles. The 22-mile section from Agordat on to Biscia has been dismantled, and the track removed. Through connection with the Sudan Railways is made at Tessenei Station by motor service from Agordat to Tessenei, 115 miles (see the map in *The Railway Gazette* of December 31, 1943, page 662). The gauge of the Eritrea Railway is still 0·95 metres (3 ft. 1⅜ in.), the standard Italian colonial gauge. The ruling gradient is 1 in 25, compensated, and the radius of the minimum curve is 230 ft. The axle-load limit is 13 tons. A portion of the railway is duplicated by the Massaua-Asmara Ropeway, 47 miles long, which has a total rise of 7,875 ft., and an hourly capacity of 30 tons each way.

Cheaper Meals for American Armed Forces

Resolution No. 416 has been introduced into the United States House of Representatives by Mr. E. A. Hall, Republican of New York State, seeking that Congress shall request the U.S. railways to reduce the meal and refreshment charges in dining cars to ordinary restaurant levels. It is claimed that the members of the Armed Forces are charged unreasonably high rates for food while travelling, and that, as many of them cannot afford to pay such prices, they are entitled to special consideration.

Cutting U.S.A. War Locomotive Orders

There has been a considerable reduction in the number of steam locomotives scheduled to be supplied by American builders during 1944 to meet military requirements, chiefly overseas. Orders for locomotives weighing 80 tons and more have been cut by 741 units, or about 25 per cent., and for locomotives of between 50 and 80 tons by 162 units, or 35 per cent., though this still leaves on order some 2,000 of the larger and 300 of the smaller locomotives. This compares with only 275 steam locomotives scheduled to be built for domestic use, though the latter are all of far larger and more powerful types.

Covering Wagon Defects with Paint

The Mechanical Division of the Association of American Railroads has issued to its members, an instruction that new or second-hand bogie sides or other truck parts, must not be painted with heavy asphaltic, tar, or cement-base paints, as these prevent the detection of flaws in ordinary inspection; if such parts are painted, only light-bodied paints may be used. The instruction was the result of failures in cast-steel bogie side-frames and other parts, by reason of defects which had been covered by heavy-base paints, and therefore were invisible to wagon inspectors. Many wagons are being used on interchange service between the railways with their bogies carrying thick coats of paint, or incrustations of rust or scale; it is recommended that these coatings should be removed by sandblasting or other method and that the parts concerned should be carefully inspected and then painted with a light-base paint.

Canadian Pacific Railway Company Annual Meeting

The annual meeting of the Canadian Pacific Railway Company was held in Windsor Station, Montreal, on May 3. Mr. D. C. Coleman, LL.D., D.C.L., Chairman & President, presided.

The Chairman, in the course of his speech, said that the directors had regarded it as a privilege that all the resources of the company had been devoted to the achievement of victory. Now that ultimate victory was assured, they might justifiably look back with satisfaction on the continued success of the company in fulfilling its share of the heavy responsibility of maintaining vital links of transport and communication both within and without the boundaries of the Dominion. During the war years the tasks efficiently accomplished by the Canadian Pacific had continued to increase in number and importance, culminating in the record-breaking performance of the past year.

Gross earnings for 1943 had reached the record height of $297 millions. Notwithstanding successive increases in operating costs the traffic had been carried at pre-war rates. The full significance of this might be better appreciated when it was recalled that during the fifteen years before 1939 many reductions had been made in the charges for certain classes of traffic so as to meet the rising tide of highway competition. Had the railway enjoyed in 1943 the same average revenues per ton mile and per passenger mile as in 1924, gross earnings would have been higher by $55 millions. Working expenses and taxes for 1943 required 83 cents of every dollar of earnings, approximately the same as during the low traffic pre-war years. Thus, although freight traffic had doubled and passenger traffic had trebled since the commencement of the war, increased labour costs, increased prices for material, and higher taxation had had the effect of off-setting all the benefits of improved unit performance resulting from the increased traffic volume. Although gross earnings for the year increased $40 millions, net income showed an improvement of only $2,600,000, of which $1,159,000 resulted from a reduction in the fixed charges for the year.

For the first three months of the present year, gross earnings had increased by 18·3 per cent. A substantial part of this improvement had resulted from grain traffic. There had been also a freer movement of other traffic than in the winter of 1943, because of less severe weather conditions. Working expenses had continued to increase for the same reasons mentioned with respect to expenses for the year 1943. Net earnings after taxes had improved but slightly.

Although the industrial activity of Canada had reached a very high level and railway traffic reflected this activity, he did not expect that gross earnings for the remainder of the year would continue to show the same degree of improvement as in recent months. It was not improbable that in certain classes of traffic decreases rather than increases might become general. If this should be the case and if expenses continued their upward trend, further improvement in the net results could not be expected and the peak of net income would have been passed.

In each year since the commencement of the war, freight, passenger, and other railway traffic had continued to expand. In this period the company had transported more than 215 million tons of freight and 35 million passengers. This had represented a stupendous accomplishment, made possible by the free association of three important groups, each making an essential contribution to mutual Canadian interests. First, there were the many patrons of the Canadian Pacific throughout Canada and numerous other parts of the world, who continually relied on the varied and far-reaching services which the Company provided, and who, by their ready understanding and acceptance of the difficulties of wartime transportation had assisted in the maximum utilisation of its equipment and facilities. The second group embraced the employees of the company, numbering more than 75,000, whose wages and working conditions had set a high standard for Canadian labour. Their loyalty to the Canadian Pacific, their courtesy to its patrons, and their willingness to accept the responsibilities of public office and give freely of their time in various activities for the welfare of the community, had always been outstanding. The third group was made up of the investors, numbering more than 200,000, who owned the various securities and stocks of the company. They were citizens of Canada, the United Kingdom, the United States and other countries throughout the world, all friendly to Canada and the Canadian system of free enterprise, as was manifest from the fact that they had chosen to risk their capital in the undertaking of the Canadian Pacific.

The Government of Canada had announced its policy with respect to post-war aviation. Under that policy international services would be provided exclusively by a chosen instrument, and a Government-owned company was indicated as that instrument, in so far as domestic services were concerned. Main-line operations were to be conducted by a Government-owned company, and feeder lines in zones by a number of privately-owned companies. The railway companies were to be required to divest themselves of the ownership of air lines within one year after the close of the war. The decision was most disappointing to the directors, as they had cherished natural and legitimate hopes that the company would be given the opportunity to play its full part in the development of aviation. Their case was fully and strongly presented to the proper authorities. No encouragement had been given that the announced policy would be materially modified, and future plans were being made in conformity with it.

The possibility of a dividend on the ordinary stock payable out of the current year's earnings would be considered by the directors in August. By that time they would be able to estimate the probable size of the prairie grain crop, and certain other issues having an influence on net earnings for the year would have been determined.

The officers of the company were engaged in framing plans and policies which would enable the company to meet adequately the problems which would arise in the era of post-war readjustment.

There was considerable activity in the ranks of those who maintain that the fruits of prosperity can be properly distributed only through measures of rigid State control and that free enterprise should be systematically extinguished. Class, occupational, and sectional jealousies were being fostered, and young people encouraged to form themselves into organised pressure groups to struggle with the State and with each other for a sharing of wealth—wealth which they were not urged or encouraged to create. If those behind this movement were entrusted with executive power, they would find that to satisfy the appetites they had inflamed, and to reconcile conflicting claims which they had encouraged would be a task beyond their powers. The trouble with their teaching was that they placed all the emphasis on dividing rather than on creating wealth. Injustices in division or distribution, as they became manifest, should be, and had to be corrected, but it should be fairly obvious that if the standard of living was to be improved or even maintained at the present level more wealth had to be created for ultimate division. No man had been able to show that as much wealth could be produced under State control of production and distribution as under a system of free enterprise.

By reason of climate and geography Canada's riches were hard to get at and hard to market; and to a very special degree this country's development had been due to the daring, initiative, and resourcefulness of her sons—supported in their efforts by venture capital from Great Britain and the United States—and it would appear incredible that she would now turn her back on the system, on the elements, on the forces which had made her great. The democratic peoples had endured patiently for some years restrictions on their freedom thought necessary for the successful prosecution of the war. It was difficult to believe that they would willingly bow their necks to the yoke of bureaucracy when the necessity for it had passed, or to condemn their sons returning from active service to live in a world from which adventure and enterprise had been banished for ever.

L.N.E.R. Marshalling Yard Loudspeakers

The L.N.E.R. has introduced a loudspeaker apparatus to facilitate the working of an important marshalling yard in the West of Scotland. This is the first time equipment of this kind has been so used by this company in Scotland. The amplifying equipment, including the crystal microphone, has been installed in a telephone booth in close proximity to the position in the yard at which the shunter in charge of operations is stationed, and two horn-type projector loudspeakers specially constructed for outdoor use cover key points giving access to the various sidings.

Hitherto the shunter-in-charge had to rely on his voice being sufficiently strong without mechanical aid to be heard by his assistant, who passed on the message to the other shunters. The instructions given at the time of uncoupling can now be heard clearly by all concerned, without interference due to unfavourable weather conditions and noises inseparable from the movement of engines and vehicles in a marshalling yard.

The installation is proving very successful; movements are now carried out more speedily, and the risks of misunderstanding are almost entirely eliminated, thus avoiding the additional shunting of wagons which have been wrongly diverted. During 24 hours an average of 40 trains are dealt with in this yard, representing the marshalling of some 1,400 wagons into trains for destinations all over the country.

Parliamentary Notes

L.N.E.R. Bill

The London & North Eastern Railway Bill was read the second time in the House of Lords on May 3 and committed to a Committee.

L.M.S.R. Bills

The Lord Chancellor (Viscount Simon) on May 2 acquainted the House of Lords that the Clerk of the Parliaments had laid on the table a certificate from the Examiners that the Special Standing Orders applicable to the following Bills had been complied with:—London Midland & Scottish Railway (Canals) Bill, and London Midland & Scottish Railway Bill.

Ministry of War Transport Estimates

Mr. P. J. Noel-Baker (Parliamentary Secretary, Ministry of War Transport) presented the Estimates for his Department to the House of Commons on May 5.

In the course of his review Mr. Noel-Baker said that the Prime Minister stated 14 months ago, that to then, we had transported 3,000,000 troops overseas. Last year we made a formidable addition to the total, and, with the troops went a vast quantity of tanks, aircraft and other equipment very difficult to load and handle. The pressure on the railways, and indeed on other forms of inland transport, had been no less. There had been more passengers on the railways—not only troops for overseas, but troops on leave. Journeys over 200 miles of troops and their dependants constituted 80 per cent. of the passengers who travelled. Taking 1943 as a whole, the number of passenger journeys, excluding season tickets, was up by 20 per cent. as compared with the period before the war. The average distance of every journey had increased by more than one-half, so that the total passenger miles were up by 60 per cent. and the pressure had gone on steadily increasing. Passengers in 1943 were more by 106,000,000 than they had been the year before. Freight traffic increased even more. Light merchandise, which needed most handling and took most space in wagons, had increased by 86 per cent. as compared with 1938. Heavy merchandise and minerals had increased by 68 per cent. Even coal traffic had increased by 13 per cent. compared with the figures before the war. Not only so, but the average haul was longer. By the end of 1943 the railways were carrying 1,000,000 ton-miles more freight traffic every hour of every day than they had been before the war. There were 7,000 extra trains for workers every week and, in addition, in a single recent week, there were 2,400 other special trains and passengers and freight carried on Government account.

Even on the canals and inland waterways, where, before the war, the traffic was dwindling for many years, there were more cargoes than could be moved. Many boats and barges were laid up because they could not repair them. They had not the labour to do all the dredging or the other maintenance required. In spite of difficulties, the inland waterways were carrying almost as big a tonnage as before the war—that was about 1,000,000 a month—and if the statistics enabled them to calculate it in ton-miles, the fact of longer cargo journeys would show that the real work had had a big increase.

The railways had not only sent locomotives overseas, but 110,000 men into the Armed Forces. They had been replaced by women, who had done magnificently well. Even with dilution, his Ministry had found like other Departments of State, at almost every point and in almost every section of their work, that labour shortage had been a very serious factor.

Members had often read how hard it was to sail a ship in convoy, without lights, through a North Atlantic storm. Perhaps they had not thought what work was like in a railway marshalling yard, in the blackout, on a stormy winter night. It was not only the extra strain which war conditions cast on the personnel; it was the reduced capacity which inevitably resulted. In the blackout the average rate of freight trains was only 7¼ m.p.h. compared with 9 m.p.h. before the war.

That was a rough outline of the problem with which the Minister of Transport was faced. It was surely plain that he could never face it without control of the whole transport system. It was plain that he must have power to discourage non-essential traffic, or to eliminate it altogether, if that was desirable and possible. It was plain that he must have power to decide priorities, to see that his decisions were effective, and that urgent traffic really did get through. He must have the power to plan from first to last, and make certain that his plan was carried out, and that the transport system was linked together and was really co-ordinated in that special sense. He must have the power to ensure that the rates and charges and the cost of transport should not divert the traffic from that means of transport which was best in the public interest; that the transport system should be considered as a whole, that it should be co-ordinated in that sense and that traffic should be allocated to that means of transport which, for the service of the nation, could move it best.

It was plain that his first purpose, with an increased burden and restricted means, must be to cut out unnecessary movement, whether passenger or goods. Nobody had yet suggested how they could ration passenger traffic by train or bus. But they had discouraged non-essential traffic in many ways. In spite of great increases in the traffic, they had cut passenger train mileage by 30 per cent.; that meant that train loadings were up by 120 per cent. since before the war. They had abolished cheap fares, and other special concessions, which were intended to induce people to travel. They had cut road passenger services just as much as rail and, with the extra spur of the fuel and rubber shortages, they had not only reduced the normal services but they had cut out half the bus stops, all the long-distance coaches, and such shorter services as the Green Line coaches in the London area. All in all, they had cut road vehicle mileage to something like two-thirds of what it was before the war.

With goods traffic they could not only request; they could compel. It had been calculated that the scheme for "zoning" the railway hauls of certain commodities had given a tremendous result. The saving in fish traln mileage was no less than 35 per cent. Altogether, in the zoning of beer, chocolates, biscuits and many other things, a total of 276,000,000 ton-miles a year had been saved. They had had thousands of schemes throughout the country to control and rationalise the retail deliveries of groceries, bread, milk and other things. The schemes saved them 25,000,000 gal. of motor fuel a year, a saving of 36 per cent. They saved 34,000 vehicles and saved manpower on a very considerable scale. Those measures had been supplemented by other measures, such as the heavier loading of railway wagons, the staggering of working hours, and a big drive for quicker turnround. A saving of nine hours on the average journey of a railway wagon meant an additional capacity of 55,000 wagon loads, without the extra congestion which 55,000 more wagons on the line would mean. They had had a big drive to accelerate repairs both of railway rolling stock and vehicles on the roads. Eighty-five per cent. of all the work in the railway workshops today was on repairs.

On the railways great economies of manpower, particularly in the book-keeping and clerical grades, had resulted from Government control. In the railway rate book there were tens of millions of different headings, but for Government traffic they had a series of flat rates per ton for different Ministries, whatever the distance and whatever the categories of the goods. They had a simplified system for dealing with claims for damage to goods in transport, and a simplified system for demurrage. They relied on other methods to speed the turn round. They had washed out booking tickets for members of the Forces. Their railway warrant served as their ticket. There was no clearing of working expenses between the railway companies. Expenses and receipts went into a common pool.

Many of the same economies were obtained by the Road Haulage Organisation in Government and other long-distance haulage traffic with which it dealt. The Minister also got economies in the use of transport, the better use of transport, from the closer co-operation of the different railway companies which now existed. The companies themselves had done something in that direction before the war, but they would be the first to say that it had gone very much further now. They now really worked together as a single team. Passenger stock was a common pool. Their freight wagons, together with the 600,000 private wagons which they requisitioned, were also a combined pool managed by a Central Wagon Control. Sheets and ropes for goods wagons had been pooled. The traffic managers of the companies had a joint conference by special telephone every day. The companies manufactured and repaired locomotives for each other. They lent each other locomotives, they worked their locomotives on each other's lines, they lent each other skilled staff. Above all, they had cut out competitive routes, so that all traffic now went by the most speedy route, irrespective of the company to which it belonged.

Internal traffic was no less carefully planned. There met at intervals the Central Transport Committee, on which each department that used transport was represented. That committee planned six months ahead; it made allocations between roads and railways and canals; it dealt with suggestions by *ad hoc* sub-committees. The allocation of coal traffic between road transport and rail was a case in point. Others were the seasonal traffics in home-grown timber, sugar beet and seed potatoes. They had similar committees in the regions. Twelve committees met, under the regional transport commissioners, with representatives of rail, road and water transport, to decide how traffic should be carried and what means of transport could best be used. In many of the 78 districts the district transport officers had much the same machinery at their command. So, at every level, there was effective co-ordination of the transport system as a whole.

Points from Other Speakers

Mr. W. Dobbie (Rotherham—Lab.) said that the workers in the transport industry, and the people in the country, generally, had a right to know what was the future policy of the Government of the day in regard to the country's transport. He was disappointed that the Minister had not found it possible to tell them something

in regard to that matter. He asked what was to be done with the canals after the war was over. Were the railway companies to be allowed to retain them and were they to be allowed to remain in disuse, as many of them had been both before and during the war? He would liked to have heard whether the Government had any policy for co-ordinating canals with road and rail transport, for taking complete control of them and for their widening and deepening, and for the alteration of the locks to take ships of a greater capacity.

Sir Arnold Gridley (Stockport—C.) referred to a recent debate in which, he said, a charge of bias was made against the Select Committee on National Expenditure. He referred to the evidence contained in the Report which dealt with the road haulage section of the Ministry of War Transport, and said that although the report might be drawn up by a section of the committee consisting of five members, that report was studied line by line and paragraph by paragraph by the whole committee before it was passed. Therefore, it must be taken as representing the considered views of that all-party committee. His colleagues of the Select Committee on National Expenditure did not issue biased reports. They considered the evidence given before them, both on behalf of the Government and on behalf of those whose interests might be affected, with all the care and judicial-mindedness and lack of bias that they could possibly give. Their report did not criticise the administration of the Ministry of Transport as a whole. What they did ask was that the scheme in which flaws had been discovered should be looked at again, and every possible improvement made in it.

Sir Joseph Nall (Manchester, Hulme—C.) asked to what extent did the Ministry propose to augment our road system by motorway construction and to what extent would widening or improvement be effected? The question of the future requirements of the roads would depend on national policy. On what lines was the Government thinking about the future of railways and road transport? The war had shown that the country could not do without a railway system. Equally, it could not do without a road transport system. What the country had to make up its mind about was whether the railways, whoever owned them, were to be self-supporting. If they were to be run on a basis which was not self-supporting, and the Treasury had to make up the deficit, were the trading community and the public prepared to carry a heavy burden of taxation to make up the deficit, or were they alternatively prepared to accept some balancing between road and rail?

Mr. Leslie Boyce (Gloucester—C.) said he would like the Minister when he was considering future plans to bear in mind that the system of privately-owned coal wagons, which had grown up in this country, had been a sound economic proposition from the national standpoint from the very beginning. It owed its inception to the fact that the railway companies were either unable or were not prepared to provide the colliery owners or coal factors with wagons on the same enterprising terms as others were prepared to do.

Mr. J. B. Hynd (Sheffield, Attercliffe—Lab.) said that one of the problems facing the railway trade unions at the present time, and which no doubt had been brought prominently to the notice of the Minister, was the fact that the man-power situation on the railways was reaching a very serious state. The Minister should consider very seriously, in conjunction with the other Ministries which might be responsible, the question of man-power on the railways if the railways were to be maintained in their present state of efficiency and to carry out the tasks which awaited them.

Mr. E. Shinwell (Seaham—Lab.) said that a large measure of transport co-ordination had come to stay. Eighty per cent. of the people of this country, if they had to determine tomorrow the fate of the transport services of this country, would decide for public ownership. If he were asked what were the three primary objectives in relation to the railway system of the country he would say, that the first was to secure as rapidly as possible the complete electrification of our rail system. Even if we could not engage in the whole electrification of the system, at any rate we could electrify the branch lines. Already much had been done in that direction by the Southern Railway, the L.M.S.R., and the London & North Eastern Railway, and wherever it had been done it had met with instantaneous success and approval on the part of the public. We wanted it for the purpose of speeding up our goods traffic and of removing those railway contraptions that existed in some parts of Lancashire. It was almost impossible to get up any speed because of the accumulation of lines and the network of junctions and all the rest of it. The railway system of this country had to be disentangled, and if we got down to the question of electrification we would see the road out more clearly.

Turning to the question of the condition of our railway stations, Mr. Shinwell said that Liverpool Street was an "awful example." Let them consider other main line stations in London. "Take Waterloo and Victoria. The latter is little better, but they are horrible abortions." New Street, Birmingham, Lime Street, Liverpool, and other stations all over the place were dirty stations. It was time something was done by the railway companies, and if not by the railway companies, by the State, to provide decent lavatory accommodation at the stations of this country. He suggested the removal, as rapidly as possible, of perhaps the worst anachronism of the lot that legacy from the Stephenson age—the level crossings throughout the country. They were impeding traffic and wasting resources. If they could create a sound, efficient, healthy transport service, satisfactory to the users and to the employers, and satisfactory to the nation as a whole under the ægis of private enterprise, by all means let them do it. But they had not been able to do it.

Mr. T. W. Burden (Sheffield, Park—Lab.) asked what was happening in connection with the Railway Rebates Fund during the period of Government control. There could be no question that the activities of operators in the road transport goods industry required rationalisation.

Mr. Noel-Baker's Reply

Mr. Noel-Baker, replying to the debate, referred to civilian transport during the operations on the second front. He said that he could not promise no interruption, he could not promise no stoppages of certain forms of transport at certain places, he could not promise that there might not be drastic cuts for a certain period in many of the services they ran now, but he did say that if, in certain places, the train services were cut off they would try to replace them by a bus service which would get all the essential workers to their jobs. He thought he could say, broadly, that the essential services would go on.

With regard to the Railway Rebates Fund, he said that under a Statute passed by Parliament last year agriculture was getting the same in lowered rates as it used to get be ore; the rest was used by the Ministry of Fuel to subsidise the cost of coal by coaster or on long railway hauls, so that the cost of coal to the consumer should not be raised.

Dealing with canteens for railway workers Mr. Noel-Baker said there were some before the war. They had actually finished the construction of 102; 100 more were under construction, 240 were planned, and they hoped to complete them within the relatively early future. It had really been a question of labour and material at every turn. But for that they would have gone forward much faster.

He was very gravely disturbed by the casualties on the roads. They ought to be far less than they were in view of the great diminution of traffic which there had been; they would be far greater in the post-war period unless they could take effective action to bring them down. In the Forces, 140,000 men had been killed since the war began; on the roads, 39,000 had been killed. But injuries might be worse than death, if a man was crippled for life. Taking the total killed and wounded on the fighting fronts, as a result of the efforts of Hitler's war machine, 370,000 had been killed and injured in the Forces, and on the roads 588,000 had been killed and injured since the war began. That was a very grave social problem. The Government was determined to deal with it. The Road Safety Committee was giving a great deal of attention to the question, and was preparing an interim programme for action to be taken immediately after the war.

Coming to the question of road haulage organisation, he said that the Minister of War Transport intended to put in a written reply to the Report of the Select Committee which would be available very soon.

As to general planning for the future he said that on trunk roads the Ministry was arranging to take over a much greater mileage. It was getting on very satisfactorily in its negotiations with local highway authorities about the roads which should be so taken over. As at present advised, it intended to go on using the highway authorities as agents for the work of construction, maintenance and repair. He did not say that that was an inflexible, unbreakable rule, but that was, broadly, the present intention. As to motor-ways, he fully agreed that the county surveyors' scheme was a very able piece of work. No one thought they could do it all at once. They intended to make motor-ways. The Government was committed to the principle in time to come. When they had proved by suitable lengths that the motorways would really absorb traffic and make it faster and save waste and prevent accidents, they would construct more, and each that they constructed would be intended to be part of a general plan which would cover the country as a whole.

Detailed plans for the electrification of many miles of suburban and main-line railways had been or were being prepared. How far they could go, and how soon, depended on many things, in part on the major considerations which had been mentioned. On canals they were engaged on an intensive study of what was the minimum economic unit for a waterborne carrier, the 26 tons which the narrow boat carried, or 50, 70, or 100; to give a decent life to the worker; a decent return on the investment; and a real service to the nation as a whole. He hoped they would soon have a solid technical basis on which to erect a policy about inland waterways.

He wished he could tell Members that a master plan for the organisation of national transport was being set forth in legislative or memorandum form, but they

would realise that long and careful technical study of each individual form of transport was required before they could begin to consider a general plan. When the war was over they would have a considerable period before control would end. They could, he hoped, look forward to a time when a White Paper could be presented to Parliament saying what the Ministry were going to do.

Inter-Railway Trailer Pump Competition

The final of the inter-railway competition for trailer-pump teams, of the main-line railways and the L.P.T.B., of which some 1,200 had taken part in the preliminary rounds, was held at Marylebone Goods Yard, L.N.E.R., on May 6. Lord Royden, Chairman of the Railway Companies' Association, presided. It was divided into two classes, "A" for large pumps, and "B" for light pumps, and was based on the minimum time taken to complete a set drill in each class. The class A winning team was G.W.R. Paddington "B" (1 min. 47⅘ sec., including 5 sec. penalty), and the runner-up was G.W.R. Old Oak Common Loco. "A" (1 min. 50 sec., no penalty). In class B the winner was L.M.S.R. Wolverton Carriage & Wagon "A" (1 min. 26 sec., no penalty), and the runner-up was G.W.R. South Lambeth Goods (1 min. 33 sec., including two penalties of 2 sec. each).

The judging and timekeeping was performed by officers of the National Fire Service. Music was provided by the L.P.T.B. Home Guard Band. Lord Royden, in the course of a short speech, congratulated the teams on their work and thanked the members of the N.F.S. for their help. He then called on Sir Alan Anderson, Controller of Railways, Ministry of War Transport, and Chairman, Railway Executive Committee, to present the awards. Others present included :—

G.W.R.

Messrs. K. W. C. Grand, Assistant General Manager; Gilbert Matthews, Superintendent of the Line; A. S. Quartermaine, Chief Engineer; F. W. Lampitt, Chief Goods Manager; F. H. D. Page, Signal Engineer; P. W. Pine, Solicitor; G. Stephens, Chief of Police; Dr. H. H. Cavendish Fuller, Chief Medical Officer; Messrs. C. Furber, Mineral Traffic Manager & Development Agent; A. E. C. Dent, Road Motor Engineer; Major J. Dewar, Publicity Officer; Messrs. H. E. Hedges, General Assistant to General Manager; S. G. Hearn, Operating Assistant to Superintendent of the Line; C. W. Powell, Assistant to Superintendent of the Line; E. C. Cookson, Assistant to Chief Engineer; J. L. Webster, Chief A.R.P. Officer; C. T. Cox, London Divisional Superintendent; and H. G. Kerry, London Divisional Locomotive Superintendent.

L.M.S.R.

Messrs. G. L. Darbyshire, Vice-President; T. W. Royle, Chief Operating Manager; R. A. Riddles, Chief Stores Superintendent; A. Eddy, Chief Legal Adviser & Solicitor; J. Shearman, Road Motor Engineer; Captain W. L. Sinclair, Chief Marine Superintendent; and Mr. J. O'Neill, Acting Advertising & Publicity Officer.

L.N.E.R.

Sir Charles Newton, Chief General Manager; Messrs. George Mills, Divisional General Manager, Southern Area; J. C. L. Train, Chief Engineer; T. F. Cameron, Assistant General Manager (Works & General); V. M. Barrington-Ward, Assistant General Manager (Operating); F. E. Harrison, Assistant Chief Engineer; W. Y. Sandeman, Engineer, Edinburgh; G. B. Barton, Engineer, London; A. J. White, Chief of Police, Southern Area; George Dow, Press Relations Officer; A. Moss, Assistant to Engineer (Signals), London; and E. A. J. Bilham, District Engineer, Leeds.

Southern Railway

Messrs. J. Elliot, Deputy General Manager; S. E. Clark, Acting Secretary; C. Grasemann, Public Relations & Advertising Officer; K. H. Morris, Locomotive Works Manager, Eastleigh; E. Uzzell, Welfare Officer; F. H. Marshall, Assistant London District Freight Superintendent; and E. M. Turnbull, Fire Officer.

L.P.T.B.

Messrs. T. E. Thomas, General Manager; W. S. Graff-Baker, Chief Mechanical Engineer (Railways); P. Croom-Johnson, Chief Engineer (Civil); Colonel E. T. Brook, O.C., L.P.T.B. Home Guard, and Chairman, A.R.P. Committee; Messrs. F. Scothorne, Public Relations Officer; A. J. Webb, Outdoor Superintendent (Railways); E. Graham, Mechanical Engineer (Railways); J. A. Wilks, Superintendent of Rolling Stock (Railways); W. F. Wright, Assistant Superintendent of Rolling Stock (Railways); J. F. Woollcombe, Superintendent, Building Department; and L. B. Hewitt, Works & Divisional Engineer (Trams & Trolleybuses).

Ministry of War Transport

Lt.-Colonel Sir Alan Mount, Chief Inspector of Railways; and Colonel A. H. C. Trench, Inspecting Officer of Railways.

Notes and News

B.A.G.S.R. Debenture Register.—The register of debenture stockholders of the Buenos Ayres Great Southern Railway Co. Ltd. is closed from today (May 12) until May 18, both days inclusive (see Official Notices, page 511).

Associated Equipment Co. Ltd.—At a meeting of the board of directors held on April 24, it was resolved that an interim dividend, at the rate of 6d. on each £1 unit of stock, free of income tax, be paid, and that dividend warrants be despatched on or about May 19.

British Insulated Cables Limited.—Profit for the year 1943 on trading, dividends on investments, interest, etc., after taxation and contingent reserves adjustment was £1,130,253. Deducting depreciation (£256,626) and other charges, leaves £858,294. Adding £428,227 brought forward makes £1,286,521. Provision for income tax on 1943 profits absorbed £566,482, and a transfer of £100,000 is made to war contingencies reserve. The final dividend on the ordinary capital is 10 per cent., making 15 per cent. for the year, less tax, and a cash bonus of 5 per cent., less tax, is paid, leaving £390,484 to be carried forward.

L.P.T.B. Extension of Time Application.—The London Passenger Transport Board is applying to the Minister of War Transport for an Order under the Special Enactments (Extension of Time) Act, 1940, extending by three years the time now limited by Sections 5 and 29 of the London Passenger Transport Act, 1936, and Sections 29 and 33 of the London Passenger Transport Act, 1938, as extended by the London Passenger Transport (Extension of Time) Order, 1941 (S.R. & O. 1941 No. 1757), and Section 43 of the London Passenger Transport Act, 1937, and Sections 5, 21 and 35 (2) of the London Passenger Transport Act, 1939, for carrying out works, purchase of lands, and the provision, maintenance and equipment of the trolley vehicle routes as specified in the notice of application. The works include Railways Nos. 1 and 2 in Southwark and Camberwell authorised by the London Electric, Metropolitan District and Central London Railway Companies (Works) Act, 1931, and Works Nos. 20, 38, and 38A in Kensington authorised by the Act of 1936. The extension of time sought regarding trolley vehicles applies to certain routes in Hampstead, Islington, Cheshunt and Enfield authorised by the Act of 1936, and to two routes in Camberwell and Kingston authorised by the Act of 1939. It is also desired to extend the time for purchase of lands required for interchange facilities at East Finchley Station.

Great Western of Brazil Railway Co. Ltd.—The directors announce that this company will on May 19, 1944, pay interest on its debenture capital in respect of the half-year ended June 30, 1943. Warrants will be posted on May 18 to all holders of permanent 6 per cent. debenture stock registered prior to May 5, 1944. Coupon

British and Irish Railway Stocks and Shares

Stocks	Highest 1943	Lowest 1943	Prices May 9, 1944	Rise/Fall
G.W.R.				
Cons. Ord.	65½	57½	61	– ½
5% Con. Pref. ...	120½	108	120½	–
5% Red. Pref. (1950)	110½	106	107½	–
5% Rt. Charge ...	137½	123½	132½	+ 2
5% Cons. Guar. ...	135½	121 7/8	130½	+ 3
4% Deb.	118	107½	116	+ 1
4½% Deb.	119	109 7/8	116½	+ 2
4½% Deb.	124½	116	121½	+ 1
5% Deb.	138	127	131½	–
2½% Deb.	77	72½	75½	–
L.M.S.R.				
Ord.	34 1/8	28	31⅜	– ⅛
4% Pref. (1923) ...	66½	58	61	+ ½
4% Pref.	80½	73	78½	+ 1
5% Red. Pref. (1955)	105⅜	102	104½	–
4% Guar.	107	98½	102½	+ 1
4% Deb.	107⅜	103½	107½	+ 1
5% Red. Deb. (1952)	111½	108	109½	–
L.N.E.R.				
5% Pref. Ord. ...	12 3/16	7⅜	9½	–
Def. Ord.	5⅜	3⅜	4½	–
4% First Pref. ...	66½	57½	61	+ ½
4% Second Pref. ...	36½	30½	33½	– ½
5% Red. Pref. (1955)	99⅜	93	100½	–
4% First Guar. ...	102⅜	94	99	+ ½
4% Second Guar. ...	93½	85⅜	91	+ ½
3% Deb.	86⅜	78⅜	85	+ ⅛
4% Deb.	109 7/16	101⅜	106½	+ 1
5% Red. Deb. (1947)	106½	102	103	–
4½% Sinking Fund Red. Deb.	108	103½	105½	+ 1
SOUTHERN				
Pref. Ord.	80	72½	78½	+ ½
Def. Ord.	26½	20⅞	24⅜	– ⅛
5% Pref.	119½	106⅜	120½	+ 3
5% Red. Pref. (1964)	114	108½	114½	+ 1
5% Guar. Pref. ...	136	122	130⅜	+ 3
5% Red. Guar. Pref. (1957)	117	109½	114½	+ 1
4% Deb.	117½	106	112½	–
5% Deb.	137	126	132	+ 1½
4% Red. Deb. (1962-67)	112	106½	110½	–
4% Red. Deb. (1970-80)	112	107	110½	–
FORTH BRIDGE				
4% Deb.	109	104⅞	105	–
4% Guar.	105	102½	103½	–
L.P.T.B.				
4½% "A"	125 11/16	114	122½	+ 1
5% "A"	133 7/16	123	130½	–
3% Guar. (1967-72) ...	100½	97	99	–
5% "B"	124	114	122½	+ 2
"C"	72	53	72	–
MERSEY				
Ord.	34½	27	33½	–
3% Perp. Pref. ...	68	59½	69	–
4% Perp. Deb. ...	104	102½	103	–
3% Perp. Deb. ...	83	78½	79	–
IRELAND*				
BELFAST & C.D.				
Ord.	9	6	6½	–
G. NORTHERN				
Ord.	24½	16	20⅞	+ ⅛
Pref.	—	—	37⅛	+ ⅛
Guar.	—	—	62½	+ ½
Deb.	—	—	87	+ 1½
G. SOUTHERN				
Ord.	30	9½	44	– 1½
Pref.	30	11	45	– ½
Guar.	64	26½	63½	– 2½
Deb.	88½	51⅛	92½	– ½

* Latest available quotations § ex-dividend

OFFICIAL NOTICES

OFFICIAL ADVERTISEMENTS

OFFICIAL ADVERTISEMENTS intended for insertion on this page should be sent in as early in the week as possible. The latest time for receiving official advertisements for this page for the current week's issue is 9.30 a.m. on the preceding Monday. All advertisements should be addressed to:—*The Railway Gazette*, 33, Tothill Street, Westminster, London, S.W.1.

Buenos Ayres Great Southern Railway Company Limited

THE Directors of the Buenos Ayres Great Southern Railway Company Limited hereby give notice that the Register of Debenture Stockholders of the Company will be closed from Friday, the 12th May to Thursday, the 18th May, 1944, both days inclusive.

By Order of the Board,
N. F. E. GREY,
Secretary.

Out of Print

Universal Directory of Railway Officials and Railway Year Book

50th Annual Edition, 1944-45 in preparation

Price 20/- net.

THE DIRECTORY PUBLISHING CO., LTD., 33, Tothill Street, Westminster, S.W.1

No. 65 of the 4 per cent. debentures which fell due on July 1, 1943, will be paid on May 19, on presentation to Glyn, Mills & Co., 67 Lombard Street, E.C.3.

Eastern Bengal Railway Annuities.—In accordance with the provisions of Act. 47 & 48 Viet. Cap. 204, it is notified that on March 31, 1944, a total sum of £1,034,058 was invested for the purpose of providing a sinking fund in respect of the annuities Class "B."

British Continental Airways Trust Co. Ltd.—A general meeting of the members of this company (now in voluntary liquidation) will be held at 4-6, Throgmorton Avenue, E.C.2, on Thursday, June 1, at 2.30 p.m. to receive the report of the liquidator showing how the winding-up has been conducted and the property of the company disposed of; also to determine by extraordinary resolution the manner in which the books, documents and accounts of the company and of the liquidator thereof shall be disposed of.

The O. C. Power Memorial Bed.—A memorial bed in the Woodlands Hospital, Northfield, bearing the name of the late Mr. O. C. Power was unveiled on Friday last by Mr. R. J. Howley, Chairman of the Birmingham & Midland Motor Omnibus Co. Ltd., at a ceremony presided over by Alderman T. B. Pritchard, President of the Management Committee of the Royal Cripples Hospital, Birmingham. Mr. Power was a Life Governor of this hospital, and it was felt by a large number of employees of the company which he served for so many years that his memory could best be perpetuated by an endowment of a bed here. Mr. D. M. Sinclair, Acting General Manager and Chief Engineer of the company (which is an associate of the G.W.R. and L.M.S.R., as well as of the British Electric Traction Co. Ltd.) handed over a cheque for £500 for the endowment, and paid a personal tribute to Mr. Power.

Clogher Valley Railway: Further Sale.—Just over £5,000 was realised at a two-day sale of the remaining property of the Clogher Valley Railway Company, including station buildings, gate houses, and portions of the permanent way, conducted by Messrs. John Ross & Company, auctioneers, Belfast, at Fivemiletown, on Tuesday, April 25, and at Aughnacloy on Wednesday, April 26. The Rt. Rev. Dr. James Macmanaway, former Bishop of Clogher, purchased for £200 a cottage adjoining Aghanea Glebe grounds, near Brookeborough, where he lives. Colebrooke Station was sold for £160, and a gate house at Carryclogher for £200. The highest-priced house was a two-storey cottage at Grange, Ballygawley, which realised £500; the purchaser was the tenant. Other gate houses fetched from £80 to £380, and most of them were bought by the tenants. Bidding for portions of the railway track in Fivemiletown and Clogher districts was keener than at Aughnacloy, where lots were sold at £1 each, compared with prices as high as £36 and £31 for similar portions at Fivemiletown and Clogher.

Increasing Colombian Traffics.—Recently-issued figures show that the tonnage transported by the railways and cableways of Colombia totalled 5,642,000 tons in 1943, compared with 3,198,000 tons in 1942. It is added that the tonnage conveyed last year up to November 24 showed an increase of 33 per cent. over the 1942 figures. The railways and cableways of Colombia were briefly described (with map) in our issue of July 2, 1943. Since then, we have made more than one reference to the extensions and further developments which are now under way.

Paraguay Central Railway.—A substantial improvement in traffics for the first nine months of 1943, compared with the corresponding periods in 1942 and 1941, is reported by the Paraguay Central Railway. The total of mixed-train mileage operations is stated to have remained fairly constant, but the number of passengers and freight-train mileage increased by almost 20 per cent. in comparison with the corresponding previous periods. A map of the Paraguay Central Railway, which is of 4 ft. 8½ in. gauge, was published in our issue of September 3, 1943 (page 229).

City of Oxford Motor Services Limited.—The accounts of this company, which is associated with the Great Western Railway Company and the British Electric Traction Co. Ltd., show that traffic and other receipts for the year 1943, after providing for operating expenses and depreciation, amounted to £251,409 (£250,304), and interest and dividends on investments to £4,216 (£4,226). The profit for the year after provision of £192,000 (£187,500) for taxation was £18,726 (£18,535). Adding £7,414 brought in makes a total available of £26,140 (£25,784). Of this amount £4,810 is applied to the 6½ per cent. preference dividend and £13,560 (same) to the total ordinary dividend of 6 per cent. tax free for the year, leaving £7,770 to be carried forward.

Omnibus Owners' Association (Incorporated).—Notice is given in pursuance of Section 236 of the Companies Act, 1929, that a general meeting of the members of this association will be held at 88, Kingsway, London, on Monday, May 22, at 11.30 a.m. for the purpose of having an account laid before them showing the manner in which the winding-up has been conducted and the property of the association disposed of, and also of considering a resolution "that the books and papers of the association and of the liquidator thereof be handed over to the Public Transport Association Incorporated except that any such books or papers as the last-named association shall not require may be destroyed by the liquidator at any time after one month from the date of the passing of this resolution." It will be remembered that the Omnibus Owners Association is in voluntary liquidation because of its merger with the Public Service Transport Association last year to form the Public Transport Association.

San Paulo Railway Rates.—The directors of the San Paulo (Brazilian) Railway Co. Ltd. announce that the accounts for the year 1943 were received on April 26 and the annual general meeting has been fixed for Tuesday, June 27. In consequence of the persistent increase in current working expenses, the railways of the State of San Paulo petitioned in December last for an increase in rates of 15 per cent. This increase has been granted to take effect as from April 1, 1944.

A. Reyrolle & Co. Ltd.—After providing for depreciation, renewals and taxation, the profit for the year 1943, including interest on investments and loans, was £117,532 (£125,908). Add balance brought forward £139,197 (less £2,500 voted for charitable funds) making £254,229. Transfers are made of £40,000 (same) to general reserve and of £25,000 (£35,000) to development expenditure account. The final dividend on the ordinary stock is 7½ per cent., less tax, making 12½ per cent., less tax, for the year, the same as for 1942. The carry forward is £134,597.

Contracts and Tenders

According to a recent report from Cairo, the General Management of the Egyptian State Railways has been granted a credit of £E.170,000 for the purchase of locomotives.

Forthcoming Meetings

May 16 (*Tues.*).—Institution of Civil Engineers, Great George Street, Westminster, London, S.W.1, 5.30 p.m. "Stresses in concrete sleeper track," by F. Johansen, and "Experiments on concrete sleepers," by F. G. Thomas. Railway Engineering Division meeting.

May 17 (*Wed.*).—Institute of Welding, at the Institution of Civil Engineers, Great George Street, Westminster, London, S.W.1, 6 p.m. "The welding of plastics," by Dr. J. H. Paterson.

May 19 (*Fri.*).—Institution of Mechanical Engineers, Storey's Gate, London, S.W.1, 5.30 p.m. "Condensing locomotives," by Prof. G. V. Lomonossoff and Capt. G. Lomonossoff. General meeting.

May 20 (*Sat.*).—Permanent Way Institution (London Section), at the Institution of Civil Engineers, Great George Street, Westminster, London, S.W.1, "The manufacture of concrete block sleepers together with an indication as to the type and design of reinforced concrete transverse sleepers in use on the Great Western Railway," by E. C. Cookson.

Railway Stock Market

Cheerful conditions have continued in stock markets, where gilt-edged securities tended upwards partly because of re-investment of proceeds of repayment of the 5 per cent. Conversion Loan, and elsewhere shortage of stock stimulated rising prices. Sentiment reflected increased demand and the small amount of selling. Shares yielding above the average, particularly those in the iron, steel and allied sections, attracted considerably more attention. On the other hand, the general tendency in home railway junior stocks was easier after their recent improvement, although it seems probable that if markets remain buoyant, these stocks are very likely to attract a good deal more buying on yield considerations. Friday's House of Commons debate on the Ministry of War Transport Vote appears to have had the effect of emphasising uncertainty as to the position of the railways in respect of post-war transport organisation and control. Until the latter is settled the fixed wartime rental agreement will doubtless remain in force, but this would, of course, mean that dividends at around current rates would continue, which would not be an unsatisfactory position for stockholders during the change-over of the railways from war to peacetime working.

Nevertheless, it is generally hoped that as soon as is practicable the main lines of Government policy as to post-war transport and kindred problems will be indicated. It is realised that any question of nationalisation of the coal mines, the railways, and so on, is unlikely to be finally resolved until the result of the first General Election after the war. Meanwhile, however, there is no justification for home railway junior stocks continuing to be valued on a basis showing considerably higher yields than, for example colliery, shares; and if an upward trend of values on the Stock Exchange is to persist, there is no logical reason why railway junior stocks should not participate and attract a good deal more attention. Prior changes have reflected the firmness of high-class investment issues, and buying further improved prices. Moreover, L.N.E.R. guaranteed stocks also tended to attract more attention on yield and investment considerations. There has been good demand for Great Western and Southern 5 per cent. preference stocks, which again moved higher. This year's interim dividend decisions in respect of Great Western ordinary and other junior stocks of the main-line companies, including L.N.E.R. second preference, are generally expected to be the same as in respect of 1943. In fact, total dividends for the current year are expected to be maintained.

Compared with a week ago, Great Western ordinary has eased from 61½ to 61; but the 5 per cent. preference rose further from 119 to 121, the guaranteed stock from 128 to 130½, and the 4 per cent. debentures were a point higher at 116. Similarly, although L.M.S.R. ordinary reacted (from 32⅜ to 31⅝) senior stocks were better, with the guaranteed 102½ compared with 101½ a week ago, the 5 per cent. debentures 109½xd, and the 4 per cent. debentures a point higher at 107½. L.M.S.R. 1923 preference was fractionally better on balance at 61, and the senior preference improved from 77½ to 78½. Among L.N.E.R. issues, the second preference eased from 33⅞ to 33, but the first preference at 60⅜ was unchanged on balance. On the other hand, this railway's first guaranteed further improved to 99, and the second guaranteed to 91, as did the 4 per cent. debentures at 106½ and the 3 per cent. debentures at 84½. Whereas Southern deferred eased from 25½ to 24⅜, the preferred gained half-a-point at 78½. Moreover, the 5 per cent. preference further rose from 118 to 121, and is now at the same level as the corresponding stock of the Great Western. Southern guaranteed moved up from 127½ to 130½, and the 4 per cent. debentures improved further to 113. London Transport "A" and "B" stocks were higher; the "C" remained at 72.

Only small movements were shown in Argentine railway stocks, and prices were inclined to ease because of the small demand in evidence. B.A. Gt. Southern ordinary was 12½ and the 4 per cent. debentures 57 xd, with Central Argentine 4 per cent. debentures 50⅜. San Paulo ordinary rose to 54 on the higher freight rates granted the company. United of Havana debentures were higher at 32. The hint of the possibility of an interim dividend later in the year improved Canadian Pacifics to 15⅝.

Traffic Table and Stock Prices of Overseas and Foreign Railways

	Railways	Miles open	Week ending	Traffic for week: Total this year	Traffic for week: Inc. or dec. compared with 1942/3	No. of Weeks	Aggregate traffics to date: Totals 1943/4	Aggregate traffics to date: Totals 1942/3	Aggregate traffics to date: Increase or decrease	Shares or stock	Prices: Highest 1943	Prices: Lowest 1943	Prices: May 9, 1944	Yield % (Last Div.)
				£	£		£	£	£					
South & Central America	Antofagasta (Chile) & Bolivia	834	30.4.44	30,160	+ 2,630	18	505,610	474,020	+ 31 590	Ord. Stk.	15½	10	10½	Nil
	Argentine North Eastern ...	753	29.4.44	10,698	+ 3,024	44	631,632	539,106	+ 92.526	..	7⅜	5	5	Nil
	Bolivar	174	Apr., 1944	5.105	— 444	17	21,059	21,881	— 822	6 p.c. Deb.	22½	18	17½	Nil
	Brazil	—	—	—	—	—	—	—	—	Bonds	23¾	19	17	Nil
	Buenos Ayres & Pacific ...	2,807	29.4.44	129,300	+ 19 200	44	4,677,360	4,402.140	+ 2 5,220	Ord. Stk.	8¼	5¼	6	Nil
	Buenos Ayres Great Southern	5,080	29.4.44	167,400	+ 19,380	44	7,841,160	7,101.600	+ 739.5 0	Ord. Stk.	17½	9¼	12½	Nil
	Buenos Ayres Western ...	1,930	29.4.44	64,440	+ 3,780	44	2,468,100	2,377.740	+ 90,360	,,	16	9⅞	11	Nil
	Central Argentine	3,700	29.4.44	185,490	+ 64,578	44	6,647,412	5,820,951	+ 826,461	,,	10¾	6½	8¼	Nil
	Do.	—	—	—	—	—	—	—	—	Dfd.	4¼	3	4	Nil
	Cent. Uruguay of M. Video	972	22.4.44	32,7 4	— 3,001	43	1.442,887	1,228.356	+ 214,531	Ord. Stk.	7⅜	4¼	4¼	Nil
	Costa Rica	262	Mar., 1944	24 101	+ 5,596	38	199,765	132,957	+ 66.808	Stk.	16	12½	15	Nil
	Dorada	70	Mar., 1944	25,589	+ 6,059	13	73,281	59,520	+ 13.761	1 Mt. Db.	96	92	93½	4⅜
	Entre Rios	808	29.4.44	18,828	+ 1,578	14	857,532	775,380	+ 82 152	Ord. Stk.	9	5½	6	Nil
	Great Western of Brazil ...	1,030	29.4.44	21,600	+ 7,200	18	396,600	281,200	+ 115,400	Ord. Sh.	59/9	24/4½	32/6	Nil
	International of Cl. Amer. ...	794	Mar., 1944	$799,554	+ $89,552	12	$2,333,642	$2,022,352	+ $311,290	—	—	—	—	—
	Interoceanic of Mexico ...	—	—	—	—	—	—	—	—	1st Pref.	2¾	1½	⅞	Nil
	La Guaira & Caracas... ...	22½	Apr., 1944	7,490	— 950	17	29,446	35,875	— 6,429	5 p.c. Deb.	90	80	83½	Nil
	Leopoldina	1,918	29.4.44	51,793	+ 17,038	18	786,029	561,527	+ 224,502	Ord. Stk.	⅛	4	5	Nil
	Mexican	483	21.4.44	ps. 413,100	— ps. 30 000	17	ps. 6,542,700	ps 5,587,900	+ ps. 954,800	Ord. Stk.	1⅛	⅜	½	Nil
	Midland Uruguay	319	Feb., 1944	16,340	— 1,701	34	184,487	116.70J	+ 19,787	—	—	—	—	—
	Nitrate	382	30.4.44	8,563	+ 606	18	70,155	50,015	+ 20.100	Ord. Sh.	83/9	71/3	70/-	Nil
	Paraguay Central	274	28.4.44	$56,949	+ $1 359	18	$2.230.148	$1,766,660	+ $463,488	Pr. Li. Stk.	75	51½	70	8
	Peruvian Corporation ...	1,059	Apr., 1944	121,109	+ 31,298	44	1,085,795	847,392	+ 238,403	Pref.	17⅜	10¾	11	Nil
	Salvador	100	Feb., 1944	c188,000	+ c 25,000	34	c 984,000	c 772,000	+ c 212,000	—	—	—	—	—
	San Paulo	153½	—	—	—	—	—	—	—	Ord. Stk.	71	57	53½	3½
	Taltal	160	Mar., 1944	4,745	+ 310	39	50,015	41,346	+ 8.669	Ord. Sh.	37/6	20/-	17/6	Nil
	United of Havana	1,301	29.4.44	87,600	+ 19,301	44	2,498,819	2,244,325	+ 254,494	Ord. Stk.,	8½	3½	3½	Nil
	Uruguay Northern	73	Feb., 1944	1,425	— 34	34	11,503	11,064	+ 439	—	—	—	—	—
Canada	Canadian Pacific	17,034	30.4.44	1,555.600	— 35,400	18	20.120,200	17,465,600	+ 2.654,600	Ord. Stk.	18	13⅞	15	Nil
India†	Barsi Light	202	Feb., 1944	25,575	+ 3,285	47	237,600	197,852	+ 39,998	—	—	—	—	—
	Bengal-Nagpur	3,267	Feb., 1944	974,475	+ 23,250	7	11,369,400	10,049,850	+ 1,319,550	Ord. Stk.	104½	101¼	108½	3
	Madras & Southern Mahratta	2,939	Mar., 1944	320,475	+ 25,632	48	10,089,741	8,547,891	+ 1,541,850	—	—	—	—	—
	South Indian	2,349	20.12.43	19?,410	+ 24,449	37	5,321,558	4,562,445	+ 750,113	—	—	—	—	—
Various	Egyptian Delta	—	20.4.44	20,399	+ 6,556	4	603,664	458,496	+ 145.168	Prf. Sh.	6⅞	2⅜	5	Nil
	Manila	—	—	—	—	—	—	—	—	B. Deb.	45	32	40	8½
	Midland of W. Australia ...	277	Feb., 1944	21,583	— 6 758	33	245,504	252,708	— 7,204	Inc. Deb.	101	93	100½	6
	Nigerian	1,900	29.1.44	99,395	+ 18,357	30	3,418,855	2,944,340	+ 474,515	—	—	—	—	—
	South Africa	13,291	5.2.44	906,790	+ 63,914	45	37,522,295	34,935,498	+ 2,586,797	—	—	—	—	—
	Victoria	4,774	Dec., 1943	1,414,598	— 101,765	—	—	—	—	—	—	—	—	—

Note. Yields are based on the approximate current price and are within a fraction of ⅛. Argentine traffics are given in sterling calculated @ 16⅜ pesos to the £
Receipts are calculated @ 1s. 6d. to the rupee § ex dividend